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ARTICLE I.

Masked or Disguised Intermittents. A paper read before the Indianapolis Medical Society, by T. BULLARD, M. D.

MR. PRESIDENT AND GENTLEMEN:—

I have chosen this topic for this evenings disscussion, not because it is in itself new, or that I believed I could present any thing original or novel worthy of your consideration, but because I have thought it a neglected, although to us and our patients oftentimes a vastly important subject, and with the hope, I may add, of eliciting such views and experience as might not be devoid of interest.

Among the causes of disease in the Mississippi Valley stands most conspicious that which gives origin to our more common forms of fever, and, indeed, the type of by far the greatest amount of disease. The nature of this cause I do not now propose to discuss. This, as yet, intangible, invisible, agent has been variously denominated marsh miasm, miasmata or malaria. Chemistry has not, as yet, been able to grasp it; the eye aided by the most powerful microscope has not detected it. We admit the existence of a peculiar

morbific cause residing chiefly in alluvial or marshy districts, because we see effects manifested there, not otherwise accounted for. These effects are witnessed alike on the banks and through the valleys of our rivers, as well as on the plains and Savannahs of the South: in the bogs and fens around the City of the Czar, or in the Pontine marshes under the bright skies of Italy. But in order to appreciate its influence in those anomalous cases which I intend to present, let us glance at those more common forms of disease, in the production of which its power has been either acknowledged by the profession at large, or claimed and sustained by weight of authority not easily to be refuted.

Most of our authors admit that malaria is the remote or primary exciting cause of intermittent fever, and of periodical diseases in general. I am aware that Bell and others have objected to this theory, but facts and the weight of testimony seem still to be in its favor. But does malaria stop here as an essential cause of disease? What are our remittent fevers but imperfect instances of the great intermittent type modified either by a more concentrated poison or complication induced by its action.

Dr. Condie says:—

"Billious remittent fever is closely allied in its nature, the localities in which it chiefly prevails, and in many of its phenomena, to intermittent fever, of which by many it is considered a mere modification." Dr. Brown in Cycl. of Practical Medicine also, "presumes that a more intense operation of the same morbific cause required for the production of intermittent fever, engenders remittent, and the more violent the latter, the less perceptible the remission."

It is possible also, I think, that other fevers prevailing in miasmatic regions, and variously denominated by the books as typhus, typhoid, and continued, may become so modified by the action of malaria, that for practical purposes, at least,

they merge into that numerous family of intermittent, whose parentage is due to this same poison, Perhaps, Gentlemen, I shall be considered as "breaking ground," but it is not so, other ploughmen have been before me; Dr. Mitchell, speaking of typhus and congestive fevers, says: —

"The position I assume here is plainly and boldly this; there is but one feature or element in either of the fevers named, that is essential to its pathology, and that feature, property, or element, bows before the sway of sulphate of quinine, and for this reason only we cure the patient."

He then gives his success in typhoid fever with large doses of quinine in cases where "do nothing" would have been the motto inscribed on the bed of the patients by those who say the disease will run its course, and that is sometimes six weeks, and all we can do is to see you safely on, yes "on" oftentimes to the grave. Nor is the Dr. alone in this view of the subject, for Dr. McCulloch and others maintain the same views. But without entering the disputed territory there is enough conceded dominion in which malaria reigns in unquestioned power, for my present purpose. With such a cause in action, then, we should not be surprised at great diversity in results and effects, when we consider the character of the subject upon which it acts, difference in age, sex, constitution, temperament, and locality of habitation &c., for except with the condition "*cæteris paribus.*" added, like causes rarely produce exactly in all points like results. And thus in intermittents, in practice we find a great variety of anomalous, masked or disguised forms of disease, yet having origin in a common cause.

Among our more systematic authors this subject is not mentioned at all by some, and barely alluded to by others; but our practical periodicals teem with varied and interesting cases. Dr. Brown in his article on intermittent fever in Dunglinson's Cyclopædia as he says himself, gives little more than

a list of the various forms of masked intermittents. He divides them into inflammatory and nervous. Of the first, a part of his list consists of examples of pneumonia, pleuritis, carditis, otitis, peritonitis, ophthalmia, urticaria, erysipelas, rheumatism, gout, epistaxis, odontalgia, cephalalgia, meningitis diarrhœa, &c. Of the nervous, the most remarkable are asthma, periodical hysteria and epilepsy, intermitting deafness, convulsions, blindness, dumbness &c. Dr Brown quotes authorities, and names type, whether quotidian or not. Among others he quotes from an author writing in 1672, a quaint description of periodical sneezing, three paroxysms every evening and each paroxysm comprising 300 sneezes, also, a case of tertian eructation at the rate of 300 eructations per hour, examples of palsy and hemiplegia &c. But neuralgia is by far, he remarks, the most common form of masked intermittents. The first examples of this "mis-direction of the paroxysm," which drew my attention more particularly to this subject, were cases of diarrhœa: some of you may remember there were cases of this character in the Spring and Summer of 1845, in this vicinity. Then I was surprised to find that although the secretions had apparently been restored, and patients convalescent one day, yet on the second or third, or, perhaps, on the evening of the same day, there would be a recurrence of the diarrhœa as marked in its return as that of an ague, and yet no chill perhaps, and little or no fever. Believing this periodicity must depend upon the action of the same cause, which in others at the same time induced ague, I gave quinine as I would in a regular intermittent, and fortunately for our patients, if not for the Ledger, such cases were discharged in much less time than under ordinary treatment for idiopathic cases of the disease. I doubt not others present can bear witness to many similar instances. The same has been true of some cases of Dysentery the past season. But a few weeks since, I attended a

marked case of this character. Dysentery supervened upon an ordinary attack of Measles; the patient, a girl of 6 or 7 years of age had frequent and bloody stools with great tormina and some fever: I treated the case for some days as I would an ordinary instance of idiopathic Dysentery: every morning there seemed a decided improvement; one or two dark consistent evacuations, with little or no griping, very little blood and no fever. I believed my patient at such times convalescing; notwithstanding, in the evening the disease recurred with increased violence. In short, I became exceedingly anxious for the little patient. I had given Quinine in small doses for two or three mornings, to sustain my patient, but this did not avail to arrest the recurrence. I now gave the sulphate in large doses in the morning, and she had a much better evening and night. I repeated the Quinine the following morning; the tormina and bloody stools did not return and my patient rapidly convalesced. I am sure those 35 or 40 grains of Quinine saved my patient, and that they did so, not by restoring the secretions—my former treatment had apparently accomplished this—but by arresting at once the masked intermittent which to all appearances was fast hurrying her to the grave. Nor is such a case as this new; on the contrary, Morton describes an epidemic Dysentery prevailing in London in the middle of the 17th Century, in which he says: "The affection was only a symptom of the remittent fever, with distinct remissions and exacerbations every first or second day." To this might be added the testimony of Sydenham, Willis, Mosley, Roederer, Clark and many others—Says Mnyhorn, "when the fever and gripes were regularly exasperated every day or every other day, at stated periods, the Bark has often effectually put a stop to both." Dr. Wilson in his work on China, says: "In truth the flux ought to be considered a constituent part of the periodic fever, rather than an independent malady in most instances.'

Another form to which I will allude is Intermittent Hemiplegia, Cullen, mentions this as 'paralysis intermittens.' An interesting case of this character is recorded by Dr Elliotson, and inserted in the "Western Journal" 16 years ago. The man was 48 years of age, paroxysms came on about 10 o'clock every third or fourth day, lasting 3 or 4 hours. He had been subject to the affection at intervals for two years and a half: he had been in the East and West Indies. The Dr. says: "I do not doubt that this was the effect of malaria, that his hemiplegia was a form of ague. I will not quarrel about words, you might say it was not ague because unattended with shivering, fever, sweating, &c., but I have no doubt it was as much the effect of malaria as ague is." Acting on this belief the Dr. gave Quinine in large doses, considering the but recent introduction of the article into use, 40 grs. in 24 hours, 10 grn. doses. On the patient having a relapse 3 months after, the Dr. gave him 60 grs. in 24 hours, 15 grn doses, the Paralysis ceased and the patient improved in general health. Who can doubt, had this man been treated for an organic disease, for effusion or compression, for instance, but that there would have been an entire failure to say the least of it! Was it not as the Author remarked, "an affair of function induced by a particular poison?"

M. Mendiere, in the *Revue Medicale*, has published several cases of obstinate Hiccup, associated with, or dependent upon affections of the digestive organs, originating in miasmatic influence, which he cured promptly and decisively by the free use of Quinine, after they had resisted every other mode of treatment. Dr. Hogan, of the U. S. Army, says he has found the paroxysm of Asthma, is as tractable to the influence of the Sulphate as the slightest quotidian." Dr. Simon, in a French Journal, related three cases of Asthma rapidly cured by the same medication. Many instances might be quoted of Neuralgic and Hysteric affections assuming a periodic character, which when observed and treated by antiperiodic remedies, were found to yield as readily as common ague.

But it is not necessary for my purpose. Dr. McCulloch says he has seen at least four cases of absolute and pure *Mania* of most distinct tertian and quotidian forms which had become the subject of gross mistreatment. "The exacerbations were in all as distinct as those of a common intermittent would have been, and as regular, while the two tertian cases left a day intermediate of the most entire sanity of mind, the period of the paroxysm being a perfect mania and not a febrile delirium, and while in fact no marks of fevers could be discovered, and in one of these at least, the cause was as easily, as it was distinctly traced. In one the disorder had commenced, as a common tertian, which *seemed* to have entirely disappeared to be exchanged for the mania, while of the other, whatever my suspicions were, I could not procure a distinct previous history, from the inattention and ignorance of the friends and patient. In the quotidians not only were there accessory, if obscure, symptoms of intermittent to be found on an accurate inquiry in both of them, but while the original cause in one of them was distinctly traced, so was the truth of the conclusion confirmed by the success of the method of cure which was adopted, after great maltreatment." There are certain affections of the eye which are modified, at least, by malaria, and which if not recognized a "depletory treatment may be persevered in for a most unnecessary length of time, to the great prejudice of the patients general health and the decided aggravation of the local malady." I had such a case of ophthalmia not long since, general treatment and local appliances for a time seemed to encourage the hope of a speedy cure, but it held on. Some days the patient would say his eyes felt about as well as ever; in a day or two, back again would he come, like a bad penny—I began to open my own eyes, and enquired if his eyes were not worse every other day. Did not know, had not observed. I satisfied myself it was so, and gave Quinine in large doses, and the

result exceeded my most sanguine expectations. Perhaps it might be a question of ethics whether I ought to have charged him anything for my former treatment. Hoffman, Morton, Van Swieten, &c., notice many interesting cases of Ophthalmia, which, after resisting all antiphlogistic treatment, speedily gave way to the free use of antiperiodics. As it has been remarked, the difficulty lies not in treatment, but in the diagnosis of the disease, and I believe much of this will disappear when we shall become fully impressed with an adequate idea of the influence which malaria exerts, in giving character to our diseases. Not that I desire in any sense to be regarded as a routinist, or that I would willingly select any class of articles from our "Materia Medica," and make them a *hobby*.

I had sketched the history of a very curious case which came under the observation of my partner and myself, the past season, but lest I should become tedious, I will only allude to it. At the time, I had never seen a similar case, either in practice, or a description in any author, and I confess I was at a loss how to christen it! Since, I have observed two, somewhat similar, described under the term of "Flat Vision." Our patient could only see the half of an object in its natural proportions, and that at but a short distance and dimly; the other, appeared wanting or perfectly flat.

This symptom was promptly removed by Quinine and other tonics, and the power of vision increased by them and the influence of Galvanism, conjoined. Without alluding to intermittent palpitations, complications attending our pneumonias, &c., &c., I have thus simply selected specimens from a great variety.

In taking such a view of the *possible* effects of malaria, I would not be understood as claiming that all, or perhaps any, of these various forms of disease are *always* necessarily, either dependent upon miasmatic causes, or cured alone by antipe-

riodic remedies. On the contrary, it is because there are forms of these multitudinous affections, often associated with, or dependent upon organic lesion, inflammation or functional derangement, for which these "masked" varieties are liable to be mistaken, that we have thus endeavored to show the influence of so subtle an agent, and the guise it may assume. Nor in regard to the treatment, which, by the way, has been only touched upon incidentally, do we claim that antiperiodics should be the sole means of cure, in these cases, more than in common ague: and probably local inflammation &c., will often call for more energetic auxiliary treatment in these forms than in that of their regular type. Quinine, for instance, will alone often arrest the intermittent, whether open or disguised, but other and auxiliary medication may be required to restore to healthy action the various functions of the organism. And as the type of our fevers varies from time to time, now demanding the free use of the Lancet, &c, again rarely if at all, so do individual cases of any given disease require more or less modification in treatment; yet admitting the necessity of auxiliary and preparatory treatment, the remedy which seems almost an antidote to a poison of such power, the fatal results of which we yearly behold, should be given at the earliest practicable moment. I know there is authority, even that of an Eberle, for waiting for a number of paroxysms to pass before the anti-periodic is given; but I ask in the name of humanity, if he had seen as we have, fatal congestions supervene in the 2d or 3d paroxysm, of what seemed to patient, friends, and to the attending physician but simple ague, would he, or any other honest man, dare advise delay till the possible advent of the 6th or 7th attack? But supposing there was no such contingency, is the amount of suffering in each attack and the acknowledged detriment to the patient's system, of no account? or is it to be balanced by the Physicians augmented bill? In regard to the choice of the antipe-

riodic in these masked intermittents there are cases especially of Neuralgic character, where arsenic and some other agents will succeed, when Quinine or Bark fails. But I apprehend that where the sulphate has disappointed, most generally, some local complication has been overlooked, or the article has been *dosed* out in by far too minute doses. It has not been half tried until large, and if necessary, *heroic* doses have been given. It should never be said to have failed until the constitutional effects, the Quinine intoxication, has been induced, and although it may do so even after this has been secured owing to an imperfect remission, or the state of some one or more organs at the time, yet I believe this should not be regarded as proof of its failure, and that in a subsequent stage of the disease, a more perfect intermission or remission may be obtained, when the disease, as Mitchel expresses it, "will bow to the potent sway of the Sulphate of Quinine."

ARTICLE II.

Remarks on the Convulsions of Children, as they occur during Paroxysms of Intermittent Fever. By P. A. Allaire, M. D., of Aurora, Illinois.

The disordered conditions and diseases of the brain and nervous system, may well be considered as among the most interesting to the medical attendant, as they are in some of their forms the most appalling to the friends of the sufferer; while our knowledge of them is, perhaps, less precise, in consequence of the many and peculiar difficulities which attend their investigation. Of the functions of many organs and

their physical condition, we may learn something by our senses, but of the brain and spinal cord next to nothing, and we can learn nothing of the patient in many cases. There is, also, another fact which increases the obscurity of this class of affections, viz., the dissimilarity of post mortem appearances in some cases where the symptoms are the same.

The convulsions of children, occurring during attacks of ague, I do not now remember to have seen specially noticed; but it is a frequent complication in our miasmal district, and where not correctly managed may be a fatal one. All the cases observed by me have been between the ages of six months and six years, but a large majority of them was under three years of age. I have not remarked that one six years of age was more frequently attacked than the other. A deviation from the healthy circulation of the blood in the brain, I have thought would rationally account for this disturbed state of the nervous functions, and that deviation would seem to be produced by pressure. The normal circulation in this organ in children is more active than in adults, which causing a greater impressibility, will account for the ease with which irritation may here be lighted up, and it is, in fact, the reason of so many serious brain fevers occuring among them, which are originally but sympathetic affections. But that there is in this form of convulsion no cause of a reflex character, seems certain from the many signs of direct congestion present, caused by the increased force of the heart's action, and the subsequent spasm of the platysma muscles, compressing the jugular veins.

The attack occurs usually, shortly after the accession of the hot stage, occasionally before it is fairly established, and with but few, often no premonitory sympto.ns. Sometimes an unusual restlessness may be observed during the latter part of the cold stage, but generally not until this subsides can we perceive any sign of its approach, then, if the child dozes, he may start, cry out or clinch his hands; or if awake

and up, he falls as in epilepsy; general convulsions follow, the eyes are turned upward or inward, the pupils are contracted for a few moments, then dilated, and remain so during the attack, the face is flushed or purple, head hot, jugulars distended, pulse strong and frequent, the jaws are closed, respiration hurried and imperfect, but not stertorous. I have not noticed any involuntary discharges, or spasm of the glottis.

This state of convulsions may last from one to five minutes, followed by perfect coma or a partial return of sensibility, which lasts from five minutes to an hour, when another attack comes on, followed again by more perfect and persistent coma, which continues in the worst stages until death closes the scene, or it may again be interrupted, at intervals, by convulsions. In the mildest cases patients recover without treatment, after one or two convulsions, as the hot stage subsides; but some squinting and nervous agitation may then be remarked for ten or fifteen hours, and a recurrence of the chill is almost certainly followed by severe convulsions.

The successful treatment of these cases, when commenced early, is sufficiently easy. Regarding the condition of the brain as one of pure congestion, whatever may be the cause, with a tendency to terminate speedily in effusion, the *rationale* of the following treatment is as plain as it is successful and easy, when commenced before such change has occurred in this delicate organ as is almost necessarily fatal. The following cases will serve to illustrate the treatment, better perhaps than a formal discussion.

R. J. A robust male child of healthy parents, æt. two years, had had ague in the spring of '47 without complications, from which he had perfectly recovered. On the 15th August following, about mid-day, he had a mild paroxysm of intermittent fever, marked by nothing unusual, except some slight nervous agitation during the hot stage. Having had no medicine on the 17th, at noon the usual signs of a chill came on,

and lasted nearly half an hour, when it subsided, and in about five minutes after, severe general convulsions suddenly commenced. Being present at that moment, I had his head held over a vessel, and commenced at once pouring cold water in a full stream from a height of ten or twelve inches, on the neck and head: in less than a minute all spasmodic action had ceased, the face and neck which had seemed distended with blood, were now pale and cold, but the child was insensible. I continued the application less profusely, and in three or four minutes he gave evidence of improvement, by crying and struggling against it. The douche was now abandoned, but the head was kept wet with the water, during the continuance of the hot stage. No other remedy was used, the case assumed the usual appearances of a paroxysm of ague, was treated as such, and speedily recovered. This child has had intermittents since, and on one or two occasions there has been some spasm of the extremities during the hot stage, but a quart of water fresh from the well, poured on the head, always prevents further mischief.

Sarah B., a healthy, but rather slender child aged four and a half years, was seized in Sept. '46, with general convulsions during the formation of the hot stage of a fit of ague. I saw her in fifteen minutes after their commencement, and found her in an imperfectly comatose state, head hot, pupils slightly dilated and immovable, face looked full, but the expression was placid, the convulsion having subsided. As sensation was not entirely abolished, she could still swallow. I then gave her about six grains of Ipecac, and placed her feet and legs in hot water; the convulsion again commenced. Cold water was now freely applied by the douche as in the first case, all spasm subsided, and by a continuance of it, the little patient became sensible in about five minutes. Shortly after she vomited freely, the skin became moist and in an hour all the head symptoms had subsided. She was

immediately put on the use of Sulph. Quinine, and recovered without further bad symptoms.

September 6th, 1846 was called to see a male child aged nine months, of previous good health, parents healthy. Found on arriving that the child had had nearly four hours before a well marked chill, apparently of ague, which had excited no alarm as the disease was very prevalent at the time. On the subsidence of the chill, which lasted some 40 minutes, convulsions commenced and lasted about 2 minutes: this state was succeeded by stupor nearly perfect, of about half an hours duration, this was followed by another convulsion to which a comatose state again succeeded. In this way convulsions and coma alternated until the time of my arrival, a little more than three hours after the first fit. Perfect insensibility was then present, muscular system relaxed, pupils dilated, extremities and surface generally warm, pulse 120 rather feeble, no fullness of jugulars, face pale. Nothing had been done for the child except the application of spts. turpentine to the chest and immersing it in warm water. I applied for a few moments the cold water in a stream to the head, but finding it reduce the force of the heart's action, I desisted but kept the part wet with it. Mustard plasters were applied to the back of the neck, abdomen and legs, and a stimulating enema exhibited. But those efforts were of no avail; the disease had advanced too far, the pulse continued to fail, respiration became embarrassed, and the patient sank without further convulsion in about two hours, being about five and a half hours after the first fit. I regret that a post-mortem examination could not be had.

This is the only case of the disease which I have seen terminate fatally, but it is enough to prove the necessity for active treatment, to ward off the tendency to effusion which seems here evidently to have taken place as a result of the congestion.

These cases, selected from a number of others, will be sufficient in illustration. There is nothing new in the treatment, consisting as it does mainly in the use of usual revulsives and the powerful refrigerant, the cold water douche, which seems to me to have been too much neglected in the treatment of a cerebral disease, especially of children, when the attacks are often sudden, with a tendency to a speedy fatal termination. The remedy is a powerful one especially when assisted by a warm semi-capium, and I can truly say I have not seen it fail to relieve infantile convulsions, except such as arose from exhaustion, or when the cause was remote from the brain.

I may state in conclusion my impression that in these convulsions of children, the condition of the brain is allied to that of puerperal patients. In one case the excitable state of the brain being common to the period of childhood, in the other, an irritable and excitable condition of the nervous system generally accompanying pregnancy and parturition: hence convulsions occur in either case, strikingly similar in their general features, excited by causes which, in in a different state of the nervous centre would give rise to no such manifestations, which are relieved by the same class of remedies speedily, and without which treatment, in either case, death would often quickly ensue. It is true, bleeding is seldom needed, though often used in treating the infantile disease; for cold water applied as a douche, is equally speedy and powerful, and much more easily had recourse to, and children will recover from its effects almost immediately, who would not rally entirely from the loss of three or four ounces of blood in as many days.

ARTICLE III.

Case of Encephalitis, with Ossific Deposites in the Membranes of the Brain. By THOMAS HALL, M. D., M. R. C. S., of Toulon, Illinois.

William B. Maccanse, the subject of the disease, was 25 years old, of sanguine and nervous temperament, and strumous diathesis. His parents as far as can be ascertained, were healthy, and his brother and sister who are living here, appear to have good average constitutions, and enjoy generally good health.

About four months ago the patient lost his wife, and the next time his brother saw him, (a few weeks afterward,) he noticed an altered appearance of the eyes. With the exception of the ague his previous health was good. He had been subject from his seventh year to bleeding from the nose, which had come on more frequently during the past year, than the two preceeding years. His complxctiou for several months had been more florid than usual, and had perceptibly increased during the past winter. He had often complained of head-ache for three months past, which was aggravated whenever he took cold. He was naturally of a merry jovial turn, but latterly taciturn and desponding—often remarked, if reading any length of time, that the letters danced before his eyes—the powers of comparison, memory, attention—naturally great, were debilitated, and three days before he was prostrated, he failed in telling an oft told tale, and made remarks about the failure himself—was fond of telling anecdotes and relating stories but had nearly quit it, walked slower than usual and was inclined to sit still and be quiet.

April 5th. He complained of severe head-ache and fever, and applied for medical advice. He was given a dose of

calomel and rhubarb, which operated severely, and partially relieved him.

April 6th. Felt heaviness at the stomach, for which took some cough-drops at his own suggestion; a light vomiting was produced, and the only time it occurred during the continuance of the disease.

7th. Took, on his own judgement, a sweat of red pepper tea.

8th. Took another dose of calomel and rhubarb, followed by castor-oil, which operated so severely that his medical adviser, who saw him during its action, thought it best to check it with opium. Eight doses of calomel were left, one to be taken every three hours, with a dose of oil between. The discharges from the bowels were dark and billious. The prominent symptoms—head-ache and fever.

9th. His friends thought him somewhat flighty, he told them that his head was dizzy, although he expressed himself as feeling better when sitting up than lying down—freely perspiring—countenance florid—the unnatural appearance of the eyes increasing, with an expression wild and vacant, and he answers questions with hesitation. The fæces in color natural. Calomel and ipecac to to be taken every four hours.

10th. Now answers hesitatingly and irrelevantly; five doses of calomel and Dover's Powders, one to be taken every three hours up to this date. Head-ache and fever were principally complained of, gradually increasing, with occasional remissions. The disease was pronounced a mild form of billious fever.

11th. This morning apparently better, sat up half an hour, walked into an adjoining room, undressed and went to bed; he soon however sent for his brother to dress him. About ten o'clock began to feel weak, seemed anxious to speak but could not; he shortly rallied and told his brother he was sinking, for which he took two table spoonsful of pepper-sauce which was repeated in twenty minutes. His brother now left him but in

from five to ten minutes was sent for, when he appeared to be in some kind of a fit. The neighbors present thought it a congestive chill, for which they vigorously rubbed him with salt and water, and poured cold water on his head from a tea-pot. At the commencement of this paroxysm, his medical adviser was sent for, but before he arrived reaction had taken place and the patient was freely perspiring. Morphine and Piperine were now given in red-pepper tea every two or three hours until seven doses were taken. He was evidently deranged, difficulty of swallowing commencing, particularly in regard to fluids. The Prognosis was favorable, and a dose of oil ordered to move the bowels.

12th. Derangement continues, strength declining, and still sweating. Dovers powders and calomel were given every three hours. The bowels moved two or three times and he appeared to be conscious of their action. About three o'clock P. M., he could not swallow, but at ten a dose of medicine was given with some difficulty. A favorable prognosis is confidently given, "the disease is now headed," "the difficulty of swallowing is nothing but obstinacy." The opinion of the friends in regard to the issue is decidedly unfavorable.

13th. Attempts to give medicine not succeeding, the friends suggested external applications. "There is no way of combating the disease but by calomel," and nothing was done for several hours. The disease is pronounced a "billious form of fever, and a very simple case at that—the head partaking of the disorder." "I have fired bomb-shells at the stomach, without any benefit, and something else must be tried." During the after part of the day the throat, nape of the neck, sternum and abdomen were blistered, sinapisms were applied to the upper and lower extremeties, (probably on the supposition that by firing a profusion of shot, one might possibly hit.) A fatal prognosis is now given, and an acknowledgement of being beaten, but "if three more doses

of medicine could be introduced into the stomach, the patient could be saved.

14th. Early this morning the patient is given up. The history thus far has been derived from the patients brother and brother-in-law. The verbiage being retained as nearly as possible, and every one must admire its clearness; of its accuracy there can be no doubt.

Dr. Chamberlain and myself were sent for and saw him along with Dr. Smith, (who had not previously seen the case,) at three o'clock P. M. The patient was restless, rolling from side to side—the head hot—eye-brows knit—eyes suffused—pupils dilated, but not equally, the left more than the right; they responded but in a trifling degree to light, but the right more than the left—the countenance expressive of alarm with a wild and vacant gaze—the carotids beat powerfully and firmly—the radials barely perceptible—pulse 108, inability to speak and swallow—the tongue dry, brown in the centre and red at the tips and edges, and the extremities cold.

Diagnosis, inflammation of the brain and membranes. Prognosis, based more on the duration of the disease than the intensity of the inflammation, was unfavorable.

Treatment. Cupping to the extent of eight ounces from the back of the neck, blister, to the spine, cold to the head and sinapism to the lower extremities. There was no manifestation of feeling when the scarificator was applied, but he flinched on the application of the fourth and fifth glasses. An injection of gruel and croton oil was administered, and after the cupping he took a dose of calomel and some water without much difficulty.

Eight o'clock P. M., appeared better. Cupped again and took a dose of calomel. The injection was repeated.

15th.—6 o'clock A. M. Appearances more favorable. Head cooler, less knitting of the brow, tongue cleaner, moister and protruded without much difficulty, the radial artery fuller, the carotids weaker, pulse 112, the lower extremities

warmer, more tranquil, had taken fluids frequently, and the bowels had acted twice during the night: an injection of oil and turpentine was administered. Nine o'clock, cupped again, treatment continued. Eight o'clock P. M., pulse 80 and weak, patient sinking. Although the case was hopeless, constnt but ineffectual efforts were used during the night to rouse the vital energies—he died at sunrise, the next moning.

Post-mortem 9 hours after death. Body cold, not much emaciated. The chest and abdomen first opened. The organs in the chest perfectly healthy. The spleen was about four times in normal size and somewhat indurated—the mesenteric glands were large and redder than natural, but no scrofulous deposits in them—there was a small invagination of the ileum, the other organs in this cavity were sound. The head was opened carefully with a saw. The dura-matter separated easily, and was free from disease as well as its arachnoid lining, except the falciform process, which was inflamed, and had on its surface several ossific deposits, one of a considerable size had made a sulcus on the left lobe of the cerebrum, and numerous deposits of the same character could be distinctly felt, like grains of sand, on the same process. These deposits of any size, were seven in number, one about half an inch long, by a quarter wide, and a little over an 8th in thickness, hard in texture, rough and pointed on the surface, and were covered by the arachnoid, except the lragest which had caused absorption of the dura-mater and its lining membrane and was pressing against the arachnoid covering of the pia-mater. The sinuses were gorged with blood. The arachnoid of the pia-mater opake in places, with opalescent fluid underneath other portions which had preserved their transparency, and was partially adherent to the pia-mater, which was inflamed; its arteries could be distinctly traced and its veins were distended. There were five adhesions of considerable size of this membrane to the brain, requiring the knife to separate them; and the convolutions, at least many

of them, were in the same condition. The brain had evident marks of inflammation, and was highly congested; there was but a small amount of fluid in the ventricles, the cerebellum and lower surface of the brain healthy. The left cervical glands were enlarged, no other abnormal appearance detected.

The history of the case, sufficiently full for practical purposes, is replete with interest. There is little doubt but that twelve months ago, disordered or diseased action commenced in the brain or its membranes; and that grief and emotion of some kind was the exciting cause. Altered expression of the eyes—debilitated intellect—the countenance becoming more florid, notwithstanding the nose bled more frequently and profusely—intermittent head-ache often severe, and for the last two months nearly constant—and the change in manner from great cheerfulnees to gloom and despondency, were sufficient to create anxiety in any Physician at all conversant with cerebral disease, and to guide him in forming an opinion and regulating the treatment when the disease was fully formed and developed in all its fearful energies. And in this case there was no disordered function of distant organs to divert the attention of a physician from the seat of the disease, or to account, by sympathy, for the disturbance in the head.

There can be no doubt that the ossific deposites would cause occasional, if not constant, disturbances; they would act as so many centres of irritation that a common additional exciting cause would increase the irritation,—congestion greater or less in degree would follow—and hence the intermittent head-ache. It is probable that during the night of the 8th, if not previously, inflammation of the membranes commenced, limited, may be in extent to parts contiguous to the deposits, and that it gradually increased in size and intensity until the morning of the 11th, when the brain became involved in the morbid action.

The diagnosis was easy. That inflammation exised with-

in the head admitted not of a doubt,—the extent of it, however, was not so palpable. We were all convinced that the membranes were inflamed, and that it extended to the brain was inferred, principally from the inability to swallow. [Attributed by our predecessor to obstinacy.] Difficult deglutition and the total loss of the power of swallowing, were looked upon as severe indications of cerebral inflammation, when there was no local lesions to account for them. During my studentship, I had frequent opportunities of seeing the diagnosis verified; but in examining the subject since this patient's death, I find no allusion to the special bearing of the symptoms, except in Dr. Copland's Medical Dictionary [London Edition], Article, Brain, diseases of, Page 233 § 180. "In both these states of the disease, the difficulty of swallowing is great, so that fluids are sometimes regurgitated by the nose; and when the substance of the brain is chiefly affected, deglutition is often nearly, or altogether, abolished in the most intense cases." I have no doubt of the correctness of the above extract—my own observations extending back some 30 years have proved its truth and its value as a diagnostic sign, and worthy of the few remarks here made.

When the diagnosis is erroneous, the treatment cannot, except by accident, be good. The merest tyro in medicine will at once see that the administration of opium and its preparations in a case like the above, must be followed by disastrous consequences. The calomel was given with the intention of salivating the patient; a practice too frequently adopted, and when accomplished, looked upon by some physicians as a proof of superior science—the ne plus ultra of professional skill. It may be so, but salivation is no God-send for a man with a scrofulous constitution. The purging was good and so was the application of the cold water by the friends on the morning of the 11th. We used calomel, not as a mercurial, but as a purgative, the most convenient, and as being tasteless and in a small compass, the most likely to be taken with-

out irritating the patient. The moral treatment is frequently more important than the medicinal, and in every case should be associated. Gentleness, kindness ought, at all times to be manifested by a physician to the sick, and especially when the disease is irritation or inflammation of the brain and its membranes. But it is not all that think so. Some believe, or act as if they believed, that cursing at the bedside, like salivation, is another proof of superior knowledge. I have trespassed already too much on your columns, but allow me a short space to make a few remarks or post-mortem investigations---I never urge it except in unusual cases---and have never been refused. In this instance the friends were more than satisfied: it was a great consolation to them under the circumstances---to know that under the most judicious treatment, as the cause could not with certainty be divined and never removed, death must have been the inevitable result---if not during this attack, at no distant date. In our examinations we are careful to leave the body as little disfigured as possible, and in this case we overcame one of the greatest causes by drilling four holes through the parietal bones, one on each side of the saw-mark, passing small wire through them, and when the skull cap was accurately adjusted, twisting them tight---the cap was held firmly in its place, and when the integuments were returned, the forehead was as smooth and level as before. We object to no one being present---and some evidently get interested in the investigation and speak warmly in favour of it. By pursuing this open, honorable course, and by treating the dead with all respect---the feeling of the community is decidedly right on this necessary and instructive proceeding, which tells something for the Physicians, but more for the intelligence of our county. When our diagnosis is proved incorrect, though humiliating, it is useful by stimulating us to closer observation and more rigid scrutiny in ob-

scure cases—and when correct, we feel the truth of the sentiment so beautifully expressed by the Roman poet.

"Felix qui potuit rerum cognoscere causas."

ARTICLE IV.

An inquiry into Professor Herrick's theory of Cholera, in connection with Ozone. By HENRY RITCHIE, M. D., of Chicago, Illinois.

The Professor remarks, (after a detailed account of ozone, relative to its discovery, and its agency in producing epidemic influenza, and the inference that it probably might be the cause of cholera:) "Having assumed as, we do, that ozone is the cause of cholera, we shall now, after refering briefly to a few physiological facts, attempt to explain its mode of action."

The Professor then gives us the physiological changes that ensue in the capillaries, by which the arterial is converted into venous blood. And further remarks, "It is evident that these important changes would not occur, nor could the functions of any organ be properly performed, without a due supply of arterial blood constitued of its normal constituents and furnished by the lungs with the proper amount of uncombined oxygen."

He moreover says, "It is absurd to suppose, for instance, that in this disease (cholera) as in health, oxygen and the constituents of the blood and tissues combine chemically in the capillaries, since no animal heat is generated in these vessels, as the result of such combination. Yet it is evident from the appearance of the blood in the disease that such changes

do occur, and that arterial is converted into venous blood more effectually and rapidly, even, than in health." To prove the position that heat is not generated in the capillaries, he cites the coldness of the breath, and surface of the body, and then follow these remarks:—

"Yet both sides of the heart, and all the blood vessels, arteries as well as veins, are found to contain, both before and after death, dark venous blood. These facts, taken in connection with numerous others, show as conclusively as the nature of the case will admit, that these changes in the blood take place in the arteries and left side of the heart during its passage to, and before it reaches the systemic capillaries. It is evident that in health there exists in the vessels a force by the action of which chemical union is effected between elements, which, though in contact and intimately blended together, do not combine in passing through the heart and large arterial trunks, in which no such force exists.

Now if it can be made to appear in some diseases, as in cholera, a force equal to, or stronger than this, acts upon the arterial blood during its passage to, and before it escapes the systemic capillaries, causing a chemical combination of its constituents with oxygen, there is no difficulty in explaining how ozone, one of the most powerful oxydizing agents known, produces cholera.

When present in the air, it passes into, and is mixed with the arterial blood like pure oxygen, and being, as it is, a compound of oxygen and hydrogen, easily decomposes; slight causes effect a separation of its elements, and the consequent production in the arteries of new compounds of oxygen and the constituents of the blood, similar to those produced naturally in the capillaries.

During the decomposition of the ozone, its oxygen being in the nascent state and consequently more ready to form new combinations, changes the arterial blood to venous, during its passage along the heart and arteries, previous to reaching the systemic capillaries."

The Professor says that this pathology of cholera is sustained by the symptoms during life, and examinations after death. The burning sensation at the pit of the stomach shows that so far as their feelings and desires are indicative of their (the patients) condition, heat must be generated in the heart and large arteries of the chest and abdomen as the result of chemical changes, whilst the entire absence of it, on the surface, at the extremities, and in the mucous membrane lining the cavities, are conclusive evidences that no such changes take place in the capillary vessels.

Now if this is not jumping to conclusions with a vengeance, then we are no judge. Archimedes said that if he had a fulcrum for his lever he could heave the globe. Grant some gentlemen their premises and, in argument, they can almost perform a parallel feat.

The Professor assumes, in the first place, that in diseases, particularly in that of cholera, there is a force existing somewhere, either in the left heart or large arteries, that subverts the office of the capillaries; that the blood by this capricious force is changed into venous before it reaches the capillaries; and, that in consequence of this conversion of the arterial into venous blood, heat is evolved somewhere in the neighborhood of the heart or large arteries, for patients complain of this heat.

He assumes that ozone is this force: from its being a compound of oxygen and hydrogen, it is easily decomposed, slight causes effecting it, and new compounds of oxygen and the constituents of the blood arise, converting it into venous blood. According to the Professor's theory, the whole pathology of cholera is the conversion of arterial into venous blood in a part of the system where this is not want to happen. All the phenomena of this disease are owing to this vicarious action induced by ozone, the vomiting, cramping, purging, etc. But the intellect throughout the attack is perfectly normal, notwithstanding nothing but venous blood is flowing through the

vessels of the brain: is not this a little strange?

How does the Professor's theory comport with truth? The dark color of the venous blood in the normal state of the system, is supposed to be owing to the excess of carbonic acid gas contained in it; and its conversion into arterial in the capillaries of the lungs is owing to its parting with its excess of carbonic acid and the replacement of oxygen gas. It is an admitted fact that in the capillaries, the laws that govern nutrition, secretion and excretion are directly applied; and carbon being one of the results of disintegration or decomposition of the tissues, and also an effete substance to be carried out of the system as deleterious, two organs are supplied for this purpose, viz., the lungs and liver. Carbon unites with two portions of oxygen, conveyed to this system of vessels by the arteries, forming by their union carbonic acid gas, which combination generates animal heat.

Then the great difference between arterial and venous blood is this, that in the former there is an excess of oxygen; whilst in the latter a deficiency of oxygen and excess of carbonic acid which the venous blood is loaded with as an effete production to be eliminated from the system.

It is a well established fact, that in the lungs the venous blood gives off carbonic acid, the union of carbon and oxygen having taken place in the systemic capillaries, and not, as was formerly supposed, in the lungs.

If the ozone theory is true, we should like the professor to account rationally, and not by assumption how the whole volume of the blood in cholera patients is changed into dark venous blood. Ozone according to his own showing, is a tritoxide of hydrogen, that is three atoms of oxygen united with one of hydrogen; this he says, is inhaled into the lungs and passes into the circulation, and as a matter of course, at the same time the usual amount of uncombined oxygen is also taken into the lungs and absorbed, as constitutes the normal function of this organ.

Here then we have by the inhalation of ozone also diffused in the atmosphere, three atoms more of oxygen than is usually absorbed into the blood to change it from venous to arterial. And yet this great excess of oxygen, strange to say, converts the whole blood into venous, according to the professor, though his theory in the meantime maintains that nutrition, secretion, and excretion are all in abeyance to the disease: carbon cannot therefore be furnished to form one of the necessary elements for carbonic acid gas.

Now, notwithstanding the professor's theory, if experiments teach us any thing, and are of any value, the whole mass of blood instead of being dark crimson or black, should be on the contrary, a vivid scarlet, for this is always the result of the inhalation of oxygen gas, and some physicians on these very grounds have suggested as a curative agent the inhalation of oxygen gas.

The professor states as an evidence of the generation of heat in the large arteries, the burning sensation in the pit of the stomach, will the professor point out the large arteries from which this comes. Why do not patients complain of heat about the heart? we never heard of any complaining of that, but they do complain of great heat about the bowels: will the professor point out the large arteries from which this comes.

The professor says that there is absence of heat in the mucous membranes lining the cavities, then why do the patients crave as he says they do water, if the cavities lined with mucous membranes are so cold: we should rather conclude that it was to allay the sensation of heat in the lining membrane of the stomach and bowels.

The professor says that there is some particular force (he does not say what this force is, however,) in the capillaries by which arterial is converted into venous blood. Now he says if it can be made to *appear* (aye, there is the rub) that in some diseases as in cholera, for instance, a force equal or

stronger than this acts upon the arterial blood during its passage towards the capillaries, causing a chemical combination of its constituents with oxygen, *why then* there is no difficulty in explaining how ozone produces cholera. Now the professor goes on to show this force, which he has established to be ozone without a doubt, and how it steps in and supersedes the vital action of the capillaries.

How does the professor prove this? why in this way; that by its being granted that ozone is one of the most powerful oxydizing agents known, and by its being granted that it passes in and is mixed with the arterial blood, and as it is a compound of oxygen and hydrogen therefore it is decomposed; slight causes effecting a separation of its elements, and union takes place with some of the constituents of the blood, carbonizing the whole mass. Therefore, as a sequence to the above (which is very conclusive) the arterial blood in the heart and large arteries is converted into venous blood, and cholera ensues.

Does the profcssor call this logic? we can prove just as logically that carbonic acid in the atmosphere produces cholera, or sulphureted hydrogen, or any other gas. Let us try carbonic acid gas, this gas is a deutoxide of carbon: when it prevails in the atmosphere, it is inhaled into the lungs (if it is not in too large quantities, for then it causes spasm of the glottis.) Now this being a force stronger than the force in the capillaries, it acts upon the arterial blood during its passage to, and before it reaches the systemic capillaries, causing a chemical combination of its constituents with oxygen. There is then no difficulty in explaining how carbonic acid, one of the most powerful agents for turning arterial blood venous, produces cholera.

When present in the air, it passes into and is mixed with the arterial blood like pure oxygen, and being as it is a compound of oxygen and carbon easily decomposes: slight cause: effect a separation of its elements, and the consequent produc-

tion in the arteries of new compounds of oxygen and the constituents of the blood similar to those produced naturally in the capillaries; during the decomposition of the carbonic acid its oxygen being in the nascent state, and consequently more ready to form new combinations, changes the arterial blood to venous during its passage along the heart and arteries &c., &c. Now we do flatter ourselves that this is a more plausible argument than the professor's, for it has some facts that would appear to substantiate it; for instance the known fact of carbonic acid changing the color of arterial blood, whereas the professor's theory is purely ideal without a single fact to substantiate it. The professor does not deny that cholera is preceded generally by diarrhœa, and if these premonitories can be checked, the threatened attack passes off: will the professor explain this according to his theory. Will the professor give us the *rationale* of the action of sulphur in neutralizing not the agent ozone, but the effect that this agent produces on the system. A gun-shot wound is received does the professor recommend that we should apply our remedies to the bullet, or to the effects of the bullet? as well might we treat the bullet to cure the gun-shot wound, as to give an antidote for the effects of ozone on the system.

If it could be shown that ozone was the cause of cholera, and that sulphur would decompose this agent: then a sensible use might be made of it, or at least a plausible one merely as a prophylactic and not as a curative.

It will not do to establish practice upon theory, for men will run into all kinds of absurdities; as an example *similia similibus curantur*, here a most absurd system of practice is built upon the purest hypothesis, but let it be built upon facts and then it will be as firm as the house founded upon the rock, and the gusts of empiricism that sweep the land will be hurled from its solid foundation as the spray from the beetling ocean crag.

ARTICLE V

Suit for Malpractice.

[We have received from Dr. Spencer the details of a suit for malpractice. The entire communication occupying more space than we are able to give, we present our readers with the following abstract, embracing the matter at issue, and the main points of the testimony.]

An action was brought for damages by Henry Glasford against Saml. Rifenbarick and Randolph Brearly; and, as set out in the Declaration, for unskilfully and ignorantly failing to reduce a luxated hip for the plaintiff.

The defendants set up in bar of damages, that the said injury complained of, was not a luxation, but a fracture of the neck of the femur, within the capsular ligament.

John Glasford, son of Plaintiff, deposed that his father in alighting from his horse, had his foot retained in the stirrup, and that the horse ran violently with him for a distance of six or eight rods. The patient, at the time of the accident, was 61 years of age---was carried into the house and visited within an hour by Dr. Rifenbarick, who found him lying on his back, with his limbs drawn up---examined him during a space of twenty minutes---said the joint was not luxated, but badly sprained. Witness thinks plaintiff did not request defendant to return, nor did defendant say he would. Plaintiff suffered severely for four or five weeks---that during this time witness went after Dr. R. who came and gave plaintiff a dose of salts ---went after the Doctor because plaintiff was feverish and costive. The Doctor called no more for some time, and then called in company with Dr. Brearly. When plaintiff got up, the injured limb was found to be too short, and this was the first intimation they had of the fact.

Wm. Glasford says he was at his father's when Dr. R. came---states, as to the examination, about what former wit-

ness did; but thinks the examination might have lasted half an hour. No measurement was resorted to. The leg is now about two inches shorter than the other, with the toes turned out.

Dr. McFarland called—is a physician and surgeon of twelve years practice—a graduate of Jefferson Medical College. Says there are four luxations of the hip: this is the first—he critically examined the plaintiff, and felt satisfied that he was correct—said the first luxation was that in which the force applied below, drove the thigh bone upwards and backwards on the *dorsum ilii*—thinks this view of the case accounts for the turning of the toe out, as well as the shortening of the limb. In this luxation, the toe at first turns in, but by long continued use it turns out. Witness was asked if this might not be a fracture. Thought not, from the nature of the injury, and the frequency of luxations compared with fractures, and that upon the day before he had heard [no?] *crepitus* upon moving the limb. Witness was asked what the treatment should be if the injury were within the capsular ligament? Said the pullies ought to be applied.

Dr. Moore called, Is a graduate: has been three years in practice: testified as to the luxations of the thigh about what the former witness stated; and coincided with him in supposing this to be a luxation. Thinks that in this luxation the toe at first turns in, but afterwards out. Thought it possible that the injury might be a fracture without the capsular ligament, not within; but believed it to be the first luxation,

Dr. Spencer called. Is a physician and surgeon of about twelve years practice. Illustrated the four luxations upon the skeleton. Thinks this is neither of the four: knows of no luxation in which the injured limb is shortened two inches, with the toe turned outward. The anatomy of the parts precludes the possibility of such an appearance, unless the injuries were accompanied by great muscular lesion. Thinks this injury is a fracture of the neck of the femur, and of

course within the capsular ligament. A competent surgeon can distinguish a fracture by the facility of extending the injured limb to an equal length with the other, by crepitation, and by the limb being again retracted when the extending force is withdrawn. The probabilities of a fracture to an old person are *much greater* than a luxation—did not believe it would be easy to pull a man's leg shorter by drawing at the foot, nor that violently jerking at the limb would produce the first luxation. From the symptoms it would of course be absurd to suppose that this was the second, third or fourth dislocations, consequently concludes it must be a fracture.—Would not undertake to say whether or not the examination of the injury by Dr. Rifenbarick was or was not sufficient—any examination was a good one that would satisfy the surgeon as to the nature of the injury—the rule was to lay the patient on his back, and pass a tape down the median line.

Supposed an injury of this sort, in an old person, to be incurable, and that the toe always turned out. In charging the jury, the judge remarked that before they could find for the plaintiff, they must be clearly satisfied that the injury complained of was a luxation; as this was the only specification in the declaration, and if they could entertain any reasonable doubt as to its nature they must find for the defendant. The jury then retired, and after five or six hours returned with damages of $200 for the plaintiff.

[Our opinion has been asked in this case; we can give it in few words. We cannot imagine the possibility of a luxation of the head of the femur on the dorsum of the ilium, with the toe turned outwards. This was doubtless a fracture, whether within or without the capsular ligament is a matter of no consequence in the present case, neither is it necessary for us to state whether or not the treatment by the attending physician was proper or not. We have no hesitation in pronoun-

cing the verdict in this case to be unrighteous and illegal; in which opinion we are fully sustained by the charge of his Honor the Judge.—EDS.]

ARTICLE VI.

Cholera—Its Causes, Pathology, and Treatment. By E. McARTHUR, M. D., CHICAGO.

The writer of this article claims no knowledge of this disease—more than what he has been able to obtain from a careful perusal of the writings of those who have had experience in its treatment, and what personal knowledge and experience, he has been able to obtain from actual attendance upon the sick, since its commencement in this city.

It began its work of death in the city of Chicago, this season, on or about the 27th day of April, and up to this time, Aug. 22d, according to the daily reports of the Board of Health, there have been 634 deaths resulting from this disease.

The general opinion of the profession, who have had experience in the development of this disease, and in its remedial treatment, is, that it is not contagious. Facts connected with its progress here, seem to justify the above conclusion.

The general causes of cholera may very properly be divided into two, Epidemic and Sporadic. According to the accounts received from India, where it first broke out, and all along in its pathway through Europe, and even in this

country in 1832--33, we find it recorded, that a general cholera diathesis prevailed. This epidemic influence has prevailed to such an extent in this city, (containing a population of nearly 24,000) that for the last four or five months scarcely a family has escaped, and the individuals are scarce even, who have not been affected more or less by its depressing influence. Hence, the alarm in the community where the cholera prevails, from the fact that *all* more or less feel its enervating power.

There appears to be but little doubt, that the predisposing cause of this epidemic in some cases, and the exciting cause of it in others, are, aerial, and this not unfrequently of a local origin.

This aerial cause is often aided in its effects upon the system, by local agencies and predisposing conditions, favorable to the development of the disease. And although different persons occupying the same house, may from time to time be attacked with it, the conclusion is nevertheless irresistible, that the same morbific current and local agencies may continue to a greater or less degree, as when the first individual became affected thereby.

A German chemist, (Schonbein) claims to have recently discovered a new principle in the atmosphere, which is said to prevail in cholera times, and to which he has applied the term ozone, and which principle is described by other chemists, as being a trit-oxide of hydrogen.

It is said by some who assume to know of this principle, that cholera prevails proportionately to the quantity of it in the atmosphere.

Another view of this subject is held, to wit: "The hypothesis of insect life." The origin of the disease in the low marshy districts of Bengal, and that in seasons unusually wet, together with the oppressive heat of that climate, may seem to favor this hypothesis. Others believe it to arise from some unknown miasm, or atmospheric influence, not yet

detected or analyzed, by the practical and analytical chemist.

One thing is certain, this disease developes itself most in the crowded and poorly ventillated parts of cities and large towns; in low damp places, and especially where stagnant pools and water courses abound; making it the imperative duty of the public authorities in such cities and towns, to fill up and drain such places, or cause it to be done, whenever this disease prevails, or is likely to prevail.

Small filthy buildings and apartments, and more particularly, if dark, and where the impure air is continually becoming more impure, by its being confined with little egress, and less ingress of pure air, are in an especial manner obnoxious to this pestilential disease.

Individual causes have much to do in the progress of this epidemic, such as want of wholesome food; want of proper clothing; filthiness of the body; the use of ardent spirits and other narcotics; an improper use of cathartic drugs; derangement of the digestive organs; excesses in eating and drinking, especially, in eating green fruit and vegetables; irregularity of habits, and irritability of mind; together with the influence of fear, and the depressing passions. The latter perhaps more than any other cause enumerated, tending to aggravate and hasten on the full development of the disease, when it prevails extensively.

The habitually intemperate are especially liable to attacks from cholera, and when thus attacked, fall easy and almost certain victims to its dreadful and dreaded influence. This probably is brought about as a consequence of the peculiar, irritable condition of the sero-mucous membrane of the stomach and bowels, resulting from the habitual use of alcoholic drinks. Experience thus far, during the fearful progress of the epidemic in this city, has proven this position to a full demonstration.

There appears to be much discrepancy of opinion as to the manner in which the aerial agent primarily acts upon the

system, but most physicians agree as to its ultimate effects.

It will not be expected that in a short article of this kind, written for a Public Journal, that we can enter largely into the detail of the general pathology of this disease, or the physiological relations of the system as connected therewith, or even speculate much upon the varied opinions entertained by different practitioners of medicine.

We shall endeavor to be brief, and so far as possible, practical, in our deductions and conclusions. By careful observations made and repeated at the bed side, in cases of advanced cholera, it is apparent at once, that a congestive state of the internal organs, and of the venous and capillary system predominates. This congestion however, is of a passive character.

The secretions of the larger glands become entirely arrested during the progress of the disease, and at the same time a profuse serous secretion from the sanguiferous system obtains into the alimentary canal and hence, we have the distinguishing phenomena of fecal evacuation of a 'rice color,' serous vomiting, &c. In Asiatic cholera symptoms are as varied as in almost any other disease, and not unfrequently as ambiguous, requiring the utmost discernment and discrimination from the Medical attendant.

Among the premonitory symptoms of the disease, or what may with propriety be called the symptoms of the first stage, may be reckoned general lassitude, want of appetite, weakness and trembling of the extremities, flatulency of the stomach and bowels, and a general enervation of the whole system.—The tongue is sometimes covered with a white fur. This symptom was first brought to the notice of the Profession, we believe, by Prof. McNaughton, of Albany, N. Y.

A very large share of the patients from Cholera, who have fallen under our immediate notice and observation in the early stage of the disease, since its commencement in this city, have had this distinguishing pathognomic symptom. And we are

informed by other physicians practicing here, that their experience corresponds in this particular.

A diarrhœa comes on in a gradual manner, sometimes, almost imperceptible in its approach, and at other times is developed in a rapid manner. With some, this diarrhœa will be attended with pain, while others, and by far the greater portion, will scarcely notice that they have any looseness of the bowels. In the commencement of this diarrhœa, the fœcal evacuations are sometimes of a billious character, and at other times they are serous; but unless the disease is checked in this incipient stage, they very soon become profuse, serous, and light colored.

In some cases marked with severity from the first onset, the stools are profuse and "rice colored" from the very commencement.

In the second stage, the diarrhœa becomes more severe, and is generally accompanied with vomiting, spasms of the extremities, of the muscles of the chest, abdomen, &c. The fœcal evacuations are more and more profuse, and "rice colored;" the vomiting greatly increases, and all the above enumerated symptoms become exceedingly aggravated.

In the stage of collapse, or what may be called the third stage of the disease, a deathly hue is manifested, which once seen, will never be forgotten by the beholder. The stage of collapse following no other disease perhaps, presents such a peculiar and distinguishing aspect.

The pulsation of the arteries of the extremities becomes almost extinct, and in many instances quite so, and that sometimes several hours before dissolution takes place. In a few instances, after the wrists had been nearly or quite pulseless for many hours, the patients have by means of proper treatment and the strong recuperative powers of nature, gradually aroused from their collapsed state, and have finally recovered. The writer has seen and professionally attended two patients, during the prevalence of the epidemic here, in whom the

pulse at the wrist could not be distinguished for an hour or more, who finally recovered. A cold and clammy perspiration, and a general coldness of the whole periphery obtains, together with corrugated hands and feet, and a shrivelled appearance of the features and surface in general, which the writer has never seen result as a sequel of any other disease. The great majority of deaths resulting from the cholera, occur during this state of collapse. If the patient arouse, however, from this state, there is some hope of his final recovery. The consecutive fever which now follows as a sequence, is by some denominated the fourth stage of the disease. If the treatment has not been too stimulating during the process of the disease thus far, which we fear quite too often obtains, and local inflammation in this way induced, there will be reason to hope for a favorable termination.

TREATMENT.—Without reviewing the practice of any man, or set of men, in relation to the curative management of this disease, we will at once state the practice recommended and pursued by ourselves, in the treatment of the incipient, and more advanced stages of Asiatic Cholera.

And first, we conceive it to be of paramount importance to attend early to each and every symptom in the least assimilating cholera. The diarrhœa especially, which has so universally preceded the development of the disease in this place, should be at once met with its appropriate remedies. Equal parts of Paregoric Elixir, Tinct. Capsicum and Spts. Camphor, given in tea-spoon full doses to an adult, and in proportion to younger patients, and repeated every half hour or hour, as circumstances might indicate, would answer well for a domestic prescription, in the early stage of the disease. A little peppermint sling will sometimes prove effective in checking flatulency in the stomach and bowels. A tea-spoon full of Paregoric, or Bateman's Drops, repeated every hour, or at longer periods, until two or three doses had been taken, has proved sufficient to arrest the incipient diarrhœa. The follow-

ing pills have been found useful in the early stage of the complaint: ℞ Opium Pulv'd, Ipecac a-a ʒss., Calomel ʒij., mix and divide into sixty pills. Dose—take one every two hours until four are taken. In most cases the above has been found sufficient to check it. Sometimes we have found it necessary after having given the above, and when a serous discharge from the bowels continued, to administer the following prescription: Take Opium pulv'd grs. vi, Camphor pulv'd, and Acetate of Lead a-a ℈j; mix and divide into 8 powders, one of which to be given once in three to six hours, according to need.

Where the alvine evacuations exhibit much billious derangement, Calomel and Rhubarb, in the proportion of x. to xii. grs. of the former, to xv. grs. of the latter, have been found useful in correcting and controlling morbid discharges.

After the progress of the disease to the second stage, or where vomiting, cramping of the stomach and muscles of the extremities, together with "rice colored" evacuations have obtained, or appear to be rapidly approaching, we have relied upon the following prescription in some fifty to sixty cases seen in this stage, which have fallen under our own immediate and personal observation—ourself and two other individuals of our own family being of the number, and have found it to meet our most sanguine expectations. To wit: ℞ Calomel. grs. xvii. to xx; Opium pulv'd, grs. ii.; Camphor, grs. v. to vii.; mix and divide into 3 powders; take one and repeat every two and a half or three hours; apply strong sinapisms to the stomach, wrists, and ancles, and if any pain or uneasy sensation in the region of the bowels, apply a large hop poultice previously steeped fifteen to twenty-five minutes in hot vinegar. And so far as we are able to judge from experience derived from the number of cases mentioned above, we are led to the conclusion that the above prescription and applications varied a little to meet particular predisposition and different consti-

tutions, will fully meet the reasonable expectations of any practitioner of medicine.

Where there is the least appearance of collapse, it is well to apply bottles filled with hot water to the feet, knees and thighs, &c. But if a general collapse obtains, or appears to be manifesting itself, it is proper in addition to the above, to give hot brandy sling, tinct. capsicum in tea-spoon full doses in hot water, one or both every half hour or hour, and in some instanstances as often as every ten or twenty minutes; also ℞ quinine grs. vi. to x.; camphor pulv'd, grs. ii. to iv., every hour, two hours, or longer period, according to circumstances; rub the extremities and surface with hot dry flannel, with, or without powdered mustard; also with hot brandy, vinegar, spt's camphor, &c. It is of the utmost importance on the part of the Medical Attendant, not only to the patient, but to the patient's friends, and attendants generally, that he endeavor by all suitable ways and means, to enliven, and so far as it may be done with reason and propriety, to encourage the patient.

And especially is it proper for the Physician, in view of the uncertainty of human life, when this pestilential scourge is sweeping off its victims as with the besom of destruction, to warn the patient in a calm and dignified manner of his danger, so that he can if necessary make any temporal arrangement in relation to his property &c., but more especially that he may look to the Great Physician of soul and body, in this, to him, "a time of need." It is far from being the duty of any medical man, to give to his patient unqualified assurance of life, when he is evidently sinking away, and is about "to pass to that bourn from which no traveller returns." It is not expected, nor for the most part desired, that a physician should turn priest or assume the office of minister, in a full sense of those terms; but it is proper, no matter what may be his views of the Christian Religion, or whether he has any settled opinion of it or not, that he should give his patient timely warning where it is practical, so that he can, as far as may be, reflect upon ap-

proaching death, and himself act upon that which appertains to himself alone, between himself and his God.

We may seem to have digressed from our legitimate subject, although we are slow to confess it,—but we will proceed.—Where the treatment has been pursued as advised above, in the second stage, to wit: Calomel, Opium and Camphor, and collapse does did not obtain for four or five hours, we have known of no patient but that recovered, if properly attended to for a few days afterward.

ARTICLE VII.

Ossification of a part of the Superior Lobe of the Right Lung, with a Pathological Specimen. From Drs. WILLIAMS & JOHNSON of De Pere, Wis.

MESSRS. EDITORS:—

By the bearer we send you a specimen of diseased lung, which you may call encysted tubercle, osseous composition, or any other name your sense of propriety may dictate, after examining it. Hunting for the history of a similar case, we find Laennec, in treating on encysted tubercles, says: "I have myself, never seen these cysts, whether primitive or secondary, become ossified; this morbid state must therefore be rare; but I have in my possession a cyst of the size of a hen's egg, converted into a bony substance, which was found in the lungs of a subject, who seemed to have died, as far as I could learn, of phthisis." This isolated case seems to comprise the only knowledge of that celebrated writer on diseases of the kind

here presented. Mackintosh speaks of it as an osseous composition of rare occurrence, while a large majority of writers and lecturers do not mention it.

About the middle of Jan., 1849, Dr. Williams was called to see Mr. A., aged 30, of light hair and complexion, of medium stature and build, with a full and rounded chest—had never been of a robust constitution, nor able to perform much labor without complaining of excessive fatigue; still never felt the necessity of using medicine. At the time Dr. W. first saw him, he complained of a pain in the chest, and located it two inches above, and one to the right of the right nipple, which was mitigated slightly by the use of remedies; and in about 2 weeks described it as having entered through to, and under the right clavicle. He (Mr. A.) considered the disease of no importance—that it would yield readily to slight treatment. Dr. W., on the contrary, looked upon it as a grave matter, and used energetic means to subdue the disease, which he considered was of the lungs; forming his diagnosis from the use of the stethescope, which spoke in language too plain to be misunderstood. The pain continued slightly, without coughing, expectoration, diarrhœa or night sweats, until the 20th June, '49 when he expired without any of the symptoms peculiar to *phthisis pulmonalis*. His treatment consisted at first of antimony, counter-iritants to the chest and spine as blisters, cupping, and the use of moxa followed by proto iodid Hyd. succeeded by Iod. of Potass and opiates without any beneficial effects whatever. Some five weeks prior to his death, I located in this place, and became associated with Dr. W. in the practice of medicine, at which time we saw him, (Dr. W. had not seen him for two weeks on account of illness.) We found him laboring under complete paraplegia, including the pelvic region, which to us was a matter of much interest in ascertaining the cause of this paralytic attack. We were well satisfied that his disease was of the lungs. "Auscultation told the tale." There was no soreness or tenderness on pressure over the region of the spine;

and having been taught that if the immediate cause of abolished nervous function was seated in the upper portion of the spine, or nerves of that part, paralysis would have attacked the superior extremities, consequently we were at a loss to account for the paraplegia, and I must confess that I am not yet satisfied relative to this matter. Sensibility and the power of motion were both destroyed. It was found necessary to evacuate the bladder daily until his death, by use of the catheter. His treatment from this time on, consisted simply in remedies calculated to ease him gently down the declivity of time, as we were well satisfied that he must die. On auscultation we found over the region of the superior lobe of the right lung, no perceptible sound for a space of 2 inches in diameter; the other parts of the lungs gave forth a peculiar low whizzing sound, much like blowing gently into an empty gallon tinct. bottle. Such has been the history of the case.

Post mortem 9 hours after death. Present, Drs. Crain and Marsh. I found the lungs, except the specimen sent, of a dark brown color, much softened—could be easily torn with the fingers—filled with a light red serous substance, and frothy. On the inferior lobe of the left lung, at its base, was a spot the size of a shilling, of a hard cheesy substance, supposed to be the origin of an osseous formation similar to the specimen sent you, which was taken from the superior lobe of the right lung, firmly adherent to the pleura and attached to the spine. It is to be much regretted that we did not make a more thorough dissection; but not expecting to find disease of this nature—making examination to satisfy his friends, and for our own defence as physicians, as others denied the existence of disease of the lungs, is our only excuse.

REMARKS.

The specimen sent was a piece of lung, in which was imbedded a mass of calcareous matter, of a globular form, and

more than an inch in diameter, exceedingly firm at its centre, softer upon its surface, and surrounded by a very firm cyst.

It undoubtedly presents an example, one of the most striking on record, of the cure of tubercular disease of the lungs, where the masses had attained a large size. Laennec, Andral, and others, while admitting the existence of such cicatrization, t of rare occurrence; Louis on the other hand, by negative evidence, and his silence on this point, seems to donbt its occurrence.

It would seem that while the evidences of the fatality of tubercle are abundant, the proofs of its curability have been greatly neglected, and when found, have only presented themselves accidentally. The frequency with which they have been met with, is calculated greatly to encourage us in efforts to relieve consumption. The late Dr. Parish presented a case of the kind.

In the present instance, the want of a history of the individual, and the circumstances under which the cure took place, and the means used, if any, to favor it, is much to be regretted. We abstain from any comments on the cause of paralysis, not being in possession of any facts calculated to throw light on that point, but present our thanks to Drs. Williams and Johnson, for the valuable specimen, which will be carefully preserved.

D. B.

ARTICLE VIII.

Proceedings of the Annual Meeting of the Rock River Medical Society, held at Rockford, May 15th, 1849.

Pursuant to adjournment, the Rock-River Medical Society met at the Court House in Rockford, at 11 o'clock A. M. The President, Dr. L. Clark, being in the Chair, the Meeting was duly organized by appointing Drs. Van Brunt and Armor Vice-Presidents pro tem., the regular Vice-Presidents being absent.

On motion, The Society adjourned till 1 o'clock P. M.

Pursuant to adjournment, the Society convened at 1 o'clock P. M. The meeting having been called to order, the Records of the last Annual and Semi-Annual Meetings were read.

On motion, Drs. Jeremiah Russel, Charles H. Richings, C. C. Bradley, S. W. Abbott, and John Mitchel, were elected members of this Society.

The President, Dr. L. Clark, delivered an interesting address on Continued Fever, maintaining that we have prevailing, from time to time, in the Valley of the Mississippi, genuine *Typhoid Fever*, having all the characteristics of the "Dothenenteritis" of the French pathologists, the "Abdominal Typhus" of the Germans, and the "Typhoid," so admirably described by Gerhard, Bartlett, and others of this country.

The address was followed by remarks from Prof. Armor, and others, on the peculiar pathological lesions of this form of fever, and the identity and classification of all fevers based on the cause (specified or otherwise) which produced them.

The following cases were then reported:—

1st. Prof. Armor presented a patient laboring under organic disease of the heart, and made some interesting remarks on the general subject of Physical Exploration in diseases of the heart and lungs.

2d. Dr. C. H. Richings reported a case of dropsy from disease of the kidneys.

3d. Dr. D. G. Clark presented an encephaloid cancerous tumor, which he had taken from a female breast, accompanied with interesting remarks.

4th. Dr. L. Clark reported a case of Typhoid Fever, giving its history, &c. On a post mortem examination, the intestines were found perforated.

5th. Dr. A. M. Catlin made some remarks on the subject of Inflammation and Ulceration of the Cervix Uuteri, and on the use of the speculum. He alluded to the fact that uterine diseases were quite prevalent in this region of the country, and not unfrequently very obstinate in character, resisting all the ordinary modes of treatment, being as perplexing and annoying to the physician, as distressing and discouraging to the patient. He maintained that by the use of the speculum, we could arrive at a correct diagnosis *at once*—and from the well known efficacy of the nitrate of silver when applied to inflamed and ulcerated mucous surfaces, we can hope for a speedy and radical cure. Three cases were reported in which cauterization of the cervix with nitrate of silver was employed with the most satisfactory results. This treatment was accompanied by such adjuvants as were indicated by the symptoms present.

6th. Dr. E. N. Clark reported a case of disease of the superior maxillary bone, with suspected disease of the artnum.

The following Resolutions were offered and unanimously adopted :—

By Prof. Armor: *Resolved*, That this society recommend to all its members, and to the physicians throughout the West, the propriety of making as frequent *post-mortem* examinations as possible, as an efficient means of dissipating public prejudice in relation thereto, and advancing the profession in the science of Pathological Anatomy

By Dr. Van Brunt: *Resolved*, That the members of this convention be requested to report severally to the next meeting of the society, all the facts which may come under their ob-

servation in reference to *Cholera*—its progress, symptoms, and treatment.

By Dr. Williams: *Resolved*, That Prof. Armor be requested to deliver an address before this society at its next meeting, on *Auscultation* and *Percussion* as a means of diagnosis in diseases of the heart and lungs.

By Dr. Hooker: *Resolved*, That Dr. Lucius Clark be requested to read a paper at the next meeting of the society, on the therapeutical application of the *Chlorate of Potash*.

Drs. J. Mitchell, E. N. Clark, S. W. Abbott, J. S. Lane, and S. Spencer, were appointed Delegates to attend the Wisconsin State Convention, to be held at Janesville on the 15th of June next.

The Chair then appointed Drs. Russel and Martyn to read essays at the next Semi-Annual Meeting.

On motion, it was voted that article IV, of the By-Laws be altered so that six members shall constitute a quorum.

The Society then proceeded to ballot for officers for the ensuing year, which resulted in the following choice:—

President. Dr. A. M, Catlin, of Rockford, Ill.

Vice-Presidents. Drs. C. Van Brunt, of Rockton, Ill.; J. Russel, of Byron, Ill.

Secretary and Treasurer. Dr. C. G. Clark, of Rockford, Ill.

Censors. Drs. A. Clark, of Beloit, Wis.; L. Clark, of Rockford, Ill., and G. Haskell, Rockford, Ill.

On motion: Voted that the next Semi-Annual Meeting be held at Rockton, on the third Tuesday of October next.

On motion: Voted that the next Annual meeting be held at Byron.

On motion: The Society then adjourned till 7 o'clock P. M., at which time they met, and were entertained during the evening, by a lecture from Prof. Armor on the Elements of Disease, as connected with pathological changes of the blood.

On motion: Voted that the thanks of this Society be tendered to Prof. Armor for his able and interesting address.

On motion: The Society then adjourned.

A. M. CATLIN, Sec'y.

Rockford, May 31st, 1849.

ARTICLE IX.

On the use of Etherial Solution of Gun Cotton in the cure of Erectile Tumors without Operation. By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College, Chicago.

This adhesive liquid which was ushered into the profession with great recommendations as a substitute for needles in cases of hare lip, and for adhesive plaster in wounds, seems to have failed in fulfilling the expectations which were excited of its usefulness, and to have become rather an article of the *toilette*, and a substitute for court plaster, than a useful addition to our surgical armory. Struck, however, in the experiments with it, with the contractile power it posesses, I determined to test its application to the surface of any erectile tumor which might present itself for treatment,

During the last winter a case of nævus of the size of a very large strawberry, situated on the anterior fontanelle of a young infant, was presented for operation. I immediately covered it with a solution of gun cotton, and, although it was much elevated above the surface, had the satisfaction of seeing it brought by the contractile power of the liquid in drying to a level with the sound skin. It was allowed to remain for several weeks, and then a fresh application made; and at the present time scarcely any trace of the nævus remains, although but two applications have been made.

The next case was that of a young child, with a naevus ¾ of and inch in length, and ½ an inch in breadth, situated beneath the right eye. This at birth was scarcely perceptible; but in six months had acquired the size mentioned, and was rapidly increasing. In order to avoid the irritation resulting from its proximity to the eye, the application was made during the sleep of the infant, and was required to be renewed twice a week, on account of its becoming loosened. After

two months use, the nævus is scarcely perceptible, and the use of the solution has been for sometime discontinued.

It is not improbable, that by preventing the necessity of resorting to operations in such cases, this liquid may find a use more important than any to which it has before been applied.

ARTICLE X.

Observations upon the Spread of Asiatic Cholera, and its Communicable Nature.—By JOHN EVANS, M. D., Prof. of Obstetrics and Diseases of Women and Children, in Rush Medical College.

By the term *Communicable Disease*, I mean one that generates the poison by which it is propagated. If persons previously healthy, are taken with a specific disease when brought near those affected with it, or in contact with articles that have been exposed to them, and this shall appear generally to be the condition of its spread, it is reasonable to suppose it communicated to them. I prefer this term to contagion, because the literal meaning of the latter is too limited, implying transmission only by contact, while its general acceptation by the profession, implies certain conditions, such as a fixed or uniform time for its development–a febrile action in the disease–a particular mode of exposure to the affected individual–an exemption from second attacks—a certainty of infection from exposure—a uniform course for the disease to run, &c. The term infection is defined as synonymous with contagion, and by Dunglison its meaning is restricted to cases of actual contact.

Another reason why I prefer the term Communicable, is, that the idea of whole cities and neighborhoods being contaminated by the morbific agent, may be thus introduced, which would be difficult by the use of the terms above referred to.

If the minds of my readers can be divested of the necessity of all the conditions above referred to; and be directed to the simple fact of communication from those affected with the disease to others, without any prescribed rules for that communication, (which should be the first step in the investigaton) we shall be able to furnish some evidence that is worthy of consideration.

As to the horror excited in the minds of some, on account of the moral and social influences of the doctrine of communication "the hurried and barbarous interment of the dead, scarce waiting till the breath had left the body—the worse than brutal desertion and neglect of friends and relations—all growing out of a belief in the contagious nature of the disease," I have but a word to say and a question to ask. Let us know the truth and risk the consequences. Whether is it more humane to lead our friends and relations into an exposure of their lives, by which thousands upon thousands shall be sacrificed to their temerity, if the disease is communicable; or to allow them to exercise their fears while there is doubt as to the contagion?

It is remarkable, that in the observations made upon cholera by the profession, in different parts of the country, we so often find hypotheses laid down to begin with, and facts hunted up to sustain them. Thus the Miasmatic, Animalcular, Cryptogamous, Atmospheric, Telluric, Electric, Ozonic, Carbonic, and other theories are advanced, and in the minds of the authors, doubtless proved conclusively by the *facts* thus adduced. And all this is done in an age when Medical Philosophers boast of reasoning by the inductive system—"in a century that flatters itself that it is the Nineteenth."

That it is extremely difficult for the mind to remain without

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That it is extremely difficult for the mind to remain without

forming conclusions, during the observation of the phenomena of disease, until the subject is thorougly investigated, is evident from the chaos of exploded theories that have always obstructed the path of the medical enquirer. But the conclusions to which I am forced, by this history, were made in spite of a prepossession against the doctrine of contagion, formed by receving opinions of authors, aside from a careful examination of the mode of its progress and invasion of different countries and places.

The observations of physicians in India where the disease is indigenous, should not longer be the authoritative history of its character, as it appears among us on this side of the globe.

It is because the opinions of Annesly, Johnson, Searl, Jamison, and others, who have observed it in India, have been looked to, instead of a careful annotation of its nature and mode of spreading among us, that we find so many of our authors treating as absurd, the doctrine of its communicable nature.

I shall confine my remarks principally to the disease as it occurred in this country, and especially in the Mississippi Valley, and in Chicago and its vicinity, during its recent invasion.

But first, let us glance at the mode of its introduction into this country in 1832. About the first of June, of that year, the cholera made its appearance for the first time on our Continent.* The Carricks, a vessel direct from Ireland, where the disease was prevailing when she left, arrived at Gross Island, the quarantine station for Quebec having lost 29 persons of cholera on her passage. On the 8th, a case occurred at the quarantine; on the 9th, several cases occurred at Quebec wharf, most of which were from on board the steam-boat Voyageur, which had taken passengers from on board of emigrant vessels below, and started for Montreal, but on account of bad weather, landed about 200 in Quebec. The first cases

*Dr. Morrin, Health Officer at Quebec.

in the city were nearly all of this company. In that part of Quebec where they were landed, the disease first broke out and committed its greatest ravages.

The Voyageur proceeded to Montreal. One passenger died on board of Cholera, on the passege. The first two cases in Montreal were from this boat. Dr. Morrin says, after stating these and other facts, "All things considered, I am satisfied the cholera is contagious."

The disease certainly spread about as rapidly as the travel on the Lakes along the Canada shores of Lakes Ontario and Erie; quarantine regulations at the ports on the other coast having turned the travel principally through Canada.

After this it soon made its appearance on steamboats on Lake Champlain. In about the usual length of time of travel for emigrants by land, many of whom were on the route, from here to New York, the disease broke out in the latter city. Thence it travelled along the Hudson, breaking out first at Albany, then at the larger towns on the western thoroughfare; and soon it became prevalent, first in the large cities, as a general rule, and afterwards spread to the villages and into the surrounding country, few places escaping.

But my purpose is to speak more particularly of its recent invasion of the country, as the facts are more accessible, and the evidence of its communication more pointed.

For a clear and minute history of its progress from its ancient focus around Jesore on the delta of the Ganges in different directions through Asia, during this its second spread from that hot-bed of pestilence over the civilized world, we would refer to an article by Prof. Dickson, in the New York Medical Journal for January last, derived principally from Dr. Verollot, Physician to the French Embassy at Constantinople. This history shows its transportation, with scarcely a variation, along the thoroughfares of travel, which vary in direction to almost all the points of compass.

The following extract from the London Medical Gazette, shows the result of the observations of its Editor on the progress of the disease in Europe:

"It is worthy of remark, that in 1830–'2, as in 1847–'8, the cholera has manifested itself chiefly in the great lines of intercourse along frequented roads, and the banks of navigable rivers, attacking chiefly towns and cities where the population was most dense, producing the largest amount of mortality in its first onset, then slowly diminishing in severity, and finally disappearing to reappear in a neighboring locality. According to Dr. Lasegue, the greatest rapidity with which the cholera has spreah over any locality has not exceeded a rate of from 250 to 300 miles a month. This comparatively slow progress, together with its advance in the face of prevailing winds, is very unlike the usual mode of diffusion of a purely epidemic disease."

On the 2d of December last, the ship New York from Havre, France, with a large number of passengers, (21 cabin and 331 steerage,) principally French and German emigrants from various parts of Germany,* and from Paris and Havre, arrived at the quarantine ground on Staten Island, 8 miles from the city of New York. Nine days previously the cholera broke out among the steerage passengers, and several died before the arrival, when eight or ten cases were taken from the vessel to the quarantine store houses. With some irregularity, the disease prevailed on Staten Island, and particularly in the Marine Hospital, until January 4th, when it entirely disappeared. The mortality in proportion to the population, at this place, was great. One person from the quarantine was taken with cholera in the city, but was sent back and died.—Another case took it and died in the same house where he was taken.

*A writer in the New York Courier and Enquirer, says many of these emigrants were from Hamburg and other parts of Germany where the disease was prevailing when they left, and "one or more of these poor people brought with them the bedding or clothes in which one of their friends had died of cholera." The weather had been mild until reaching the raw atmosphere of the Grand Banks, where the disease broke out, "when open comes the big chest, and out comes the infected clothing."

No other cases occurred for 9 days, when a German, who had had no traceable communication with the infected places, took it and died. This was all of the disease that occurred in the city, and it disappeared entirely from the quarantine establishment and hospital.

We observe in the report of Dr. Whiting, Health Officer, that those exposed to the persons affected, seemed particularly liable to take it.

Although this sudden arrest of the disease within such a short distance of New York, without its spreading into the city, was in the winter, it should not be contended that this fact, aside from the quarantine, was sufficient to account for the circumstance, or else why did it prevail to so great an extent at Staten Island in the month of December. The season of the year may have rendered it more amenable to this kind of control, for its whole history shows that it spreads less rapidly in cold, than in warm weather.

The history of its spread up the Mississippi Valley affords a better opportunity of investigating its communicable nature, than has been before presented; since it had but one point of departure, N. Orleans; a healthy country over which to spread, and this at a season when the travel from N. Orleans on the river was great, and the conveyance rapid and direct for thousands of miles; while through the country generally it was but little and difficult, on account of the bad roads of winter. Whereas, the former invasion of the country was made when there was much travel in all directions, and several of the great marts, as Quebec, Montreal, New York, &c., were early affected and of course the channels of its communication soon intersected each other, so as to become confused and lost.

At New Orleans, on the 11th of December last, 9 days after the appearance of cholera at Staten Island, the ship Swanton arrived from Havre with two cases on board. At the time of the departure of both this vessel, and the New York from Havre,

there was no cholera at that point. But it is worthy of remark, that passengers on both these vessels were from Germany, where the disease was raging, and that the disease made its appearance in parts of France as early as October last, though it had not reached Havre or Paris when these vessels sailed. Seventeen persons died on the Swanton during her passage, the disease having broke out when she was about two weeks at sea. At N. Orleans no quarantine regulations prevented the Swanton from landing at once in port, and the cases on board were taken to the great Charity Hospital, where, up to January, as many as fifty cases occurred among the nurses, and persons admitted for other complaints.* Several cases appeared soon after among the shipping at the landing, but were only regarded as aggravated cholera morbus. From this time the disease spread rapidly. The deaths for the week ending on the 15th, 4 days after the arrival of the Swanton, before which no case had been reported, were 17. During the next 5 days there were 87 deaths, after which the disease produced a fearful mortality, assuming the form of a general epidemic; the number of deaths up to the 4th of January inclusive, as reported, being 1115. From this time the disease rapidly disappeared, so that on the 6th of February the city was said to be entirely free from it; but it reappeared soon after, and produced a much greater mortality.

From a very early day after the disease spread so rapidly among the shipping in the port of New Orleans, where an immense fleet of steam-boats are continually arriving and departing, it began to prevail on board of these vessels while lying there and on their upward passage on the Missisippi and its tributaries.

It extended rapidly up the river, but it is remarkable, that along its course, the points having the most communication with the steam-boats, were the first to be infected, and in

*Dr. Fenner in N. Orleans Med. Jour.

no instance were any of these points affected until steam-boats from places below, where the disease was prevailing, had arrived.*

The disease extended up Red River from point to point in the same manner as up other tributaries of the Mississippi.

At Memphis, Tenn., a case occurred on the 22nd of Dec., in a boy who had been employed in huckstering fruit, &c., about town and the wharf, where he was in the habit of selling to the steam-boat passengers. Previous to this, Dr. Shanks says* there had not been any striking tendency to diarrhœa, more than usual in such damp rainy weather, although the boy had had it for several days previously. Steam-boats from this time were continually passing up the river, that reported cases and deaths on board, but for 4 days no other case occurred, when two cases at a considerable distance from each other, and from the steam-boat landing, occurred on flat-boats. The disease now rapidly spread, the whole line of flat-boats being about two miles in length, the population on which was near one thousand, but Dr. Shanks thinks, under circumstances that preclude the idea of its spreading from one to another directly, yet he believes it communicable through the air. These numerous cases occurred before the disease extended to other parts of the city, the boats being separated from the city by a wide batture.

Dr. Buchanan, of Nashville, Tenn., says,† that on the 20th of January last, 20 days after the first boat from New Orleans with cholera on board arrived, and after several other boats had been there, upon which cases of cholera occurred, one case of the disease appeared in a house almost surrounded by water, in the lower part of the city. It was a man of bad habits who had exposed himself to the weather, and in the water for several days. The next case was in the same family.

*Shanks on Cholera in American Jour. for July 1849.

†West. Lancet for Feb.

After the boats from New Orleans, on which there were cholera patients, commenced arriving at Louisville, we hear of the occurrence of the disease there, but have not been able to obtain the date of its first appearance. Various other points on the Ohio River, soon after reported cases.

Cincinnati, it will be borne in mind, is the point where a large portion of the passengers are discharged from steam-boats that ascend the Ohio River from New Orleans, and we would therefore expect that the disease would, if communicated, be found here at an early day after it broke out in New Orleans. Accordingly we find on the 27th of December, Prof. Harrison giving a clinical lecture over two cases at the hospital, which came from steam-boats that had brought them up the river.* Whether these were cholera or not, it was soon prevalent in Cincinnati. This was 12 days after it was prevalent among the shipping, and on board of steam-boats departing from New Orleans.†

Here the disease was slight, presenting only the form of diarrhœa, excepting occasional cases, until about the first of May, when it assumed the more aggravated form, from which time, until in July, it prevailed, and in June, with great mortality. The deaths up to Aug. 10th being 4,114.

About the 12th of May cases of the disease began to be reported along the Little Miami and Mad River Rail Road, upon which the travel generally goes from Cincinnati to New York.

The disease soon made its appearance at different points along this great thoroughfare of travel. On June the 7th, five cases had occurred at Buffalo, three of which were attacked on board of vessels, and were from Chicago and Cincinnati, where the disease was prevailing when they left.‡ In the meantime it was carried up the Ohio River and broke out at various

* Western Lancet.

†The time occupied in the trip ascending the river from New Orleans to Cincinnati, is from 6 to 8 days.

‡Buffalo Med. Jour. for June.

points, thus travelling the other great thoroughfare to the Eastern Cities.

Boats arrived at St. Louis with cholera on board on the 27th of December. On the 28th the Amaranth, with 30 cases on board landed there. On the first of January it had become epidemic in rather a mild form. The following from the St. Louis Medical Journal for March, gives the general facts of its introduction into that city:

"Since the 1st of Jan. up to the present time, 67 deaths have been reported as occurring from cholera. Of these, at least one half were persons who contracted the disease in New Orleans, or on their way from that city to this, and who were landed here in an almost dying condition. The remaining cases have been of local origin. During the same period, 47 cases have been admitted into the St. Louis Hospital—of which, 20 have died, and 27 recovered. Of the 20 fatal cases, a large majority were admitted either from boats or obscure and filthy parts of the city, in a state of complete collapse, from which it was impossible to arouse them."

The disease almost subsided, only an occasional case occurring, so that in February the city was thought to be clear of it. In the early part of April, (26 cases on the 10th,) the disease increased; the warm weather seemed to aggravate the cases and favor the development of the specific poison. In addition to which, the increased influx of the disease from below added greatly to its spread.* It increased until in June the mortality was as great as has been the fate of any American city; the deaths having reached the number of 180 in one day, in a population, at that time, about 40,000. Seventeen practitioners of medicine fell victims to the disease. Just before the disease subsided, a rigid quarantine stopped the emigrants from landing in the city.

*To give some idea of its great prevalence on boats ascending the river from New Orleans, where it had brok out with greater violence than in the winter, we give the following items from the Cario Delta of March 29th: Steam-boats arrived on 22d March—the Bride reported 7 deaths on board; the Uncle Sam 3 cases. On 23d the Belle Key 8 cases; the Gen. Washington several cases and 1 death; the Seraph 8 cases and 2 deaths; the Gladiator 8 cases and 3 deaths. On the 24th, the Tennessee 3 cases; the Yorktown 10 deaths.

By an intelligent gentleman, a citizen of St. Louis, who recently passed through this place from there, I learned that the greatest mortality was in the highest and most pleasantly situated part of the city.

From St. Louis it extended up the Missouri River, and broke out among the emigrants to California at their rendezvous at St. Joseph; great numbers of whom had passed through and started from St. Louis during the months of March and April.

The Sacramento arrived at St. Joseph with one case of cholera on board on the 21st of April, and on the 12th of May it was reported that boats continued to arrive with cholera on board. One vessel, the Mary, had buried 36 passengers on her trip up from St Louis, and the disease was said to be prevailing to an alarming extent among the emigrants.

The disease also spread up the Mississippi river. Five cases were reported to have occurred at Quincy, Ill., on the Upper Mississippi, on the 20th of March.

At Galena, about the middle of April, the first cases occurred in a family that came up the Mississippi on a steamboat, four of whom died.

On the 18th of March the Illinois River opened, and the steam-boat trade commenced. About the 1st of April, two cases of cholera were reported at Peoria, said to have come up the River. There had been none of it previous to this time, but soon after it appeared at other points on the river.

On the 20th of April the Illinois and Michigan Canal was opened, so that boats could pass through, and the line of communication was complete from St. Louis through it and the Illinois River to Chicago.

On the 29th of April the canal boat John Drew, arrived here with a number of emigrant passengers on board, who were direct from New Orleans, by way of St. Louis, several of whom were sick, but whether of cholera or not, I cannot ascertain. They immediately left the boat. The captain of said

boat, Mr. J. Pendleton, was taken sick on the same day. He was seen by Drs. Myers, Stewart, and others. The disease soon run into the collapse stage of cholera, and he died on the night of the 30th.

This is the first case of which I can get an authentic account. Others were soon reported in different parts of the city. Its greatest ravages for a considerable time were near the river, but as canal boats were almost hourly arriving, and no pains were taken to observe them, the manner of its spread cannot be traced. It is possible that from this time a stream of "*cholera atmosphere*," which soon prevaded different parts of the city, continued to flow in by way of the canal. Emigrants too were arriving by the Eastern route, from the 20th of April, when the lake navigation opened, many of whom were from various parts of Europe, where the cholera was prevalent, and from the quarantine at Staten Island, where it again prevailed from and after the first week in April.* The health of the city up to this time had been as good as usual at that season of the year.

That part of the city in which there was the greatest mortality, and in which scarcely an individual escaped an attack, either in the form of a diarrhœa, or the more aggravated disease, is a neighborhood of three squares, in the North Division, situated on the highest ground in the vicinity of Chicago. The soil is very sandy and dry. These blocks are thinly built up, and are nearly surrounded by open, vacant ground. The inhabitants are mostly of the better class of Norwegians, in moderate circumstances, who live as comfortably as the average of Americans. The three blocks numbered 332 inhabitants. Of these, 44 died of choler

The disease had prevailed in other parts of the city for two months before this neighborhood was affected—only one case having occurred in one of the inhabitants, a Swede, who was taken sick in a distant part of the city on the 5th of June, and

*New York Jour. Med. for July.

speedily recovered. From this time, no more of the disease occurred until the 7th of July. A day or two previous to this time, thirteen emigrants from Sweden, direct by way of New York and Buffalo came into a house occupied by Samuel Arns, and a family of 8 persons. One of these emigrants took sick of cholera on the night of the 7th of July, and died, under homœpathic treatment!! the next day. These Swedes had been unpacking their chests of clothing the day before the man above referred to took sick. After his death, the rest of the emigrants were turned out of the house, and most of them left the neighborhood.

The day after the death of the Swede, there were four of the members of Arns' family taken down. Of these, Mr. Arns' mother-in-law and his child, died, but the others recovered.

Andrew H. Nelson, who lived in another part of the same house with three other members of this family, all of whom had been attending upon, and rubbing the Swede, were taken down on the day he died, and survived but a few hours.

Notwithstanding the fearful mortality in this house, up to this time the health of the neighborhood had been good, with the above exceptions. On the night of the 14th of July, a young woman was taken, one block South of Arns' house, on the same street, and died on the 15th. No intercourse with the sick could be traced, except that she had been passing Arns' house on the side walk. Swend Olson, who lived in the next house to Arns', had a slight diarrhœa for a day or two—attended upon the young woman above referred to, until she died, was taken with the disease immediately, and died the next morning, July 16th, at 2 o'clock.

Of the family in which Olson died, Mrs. Gunwald, Mrs. Olson, and a young woman died also—one on the 23d, and one on the 24th of July, and the other on the 5th of August.

Mr. Gunwalson, who was the captain of a vessel in the harbor, sailed at once for Michigan City with his wife for fear of the disease. They however returned in health on the 25th of

July, and found the disease still in their house. Mrs. Gunwalson was taken the next day after their return, but recovered. The Captain was at home when Mrs. Olson died in his house, on the 5th, and leaving his wife sick of cholera, sailed again for Michigan City on the 7th, where, on the 9th, he was taken with it, and on the 10th died.

From Andrew Nelson, Janitor of Rush Med. College., I obtain the following—

On the 31st of July, Knuit Hanson, nursed Nels. Nelson until he died, which was about noon. At 2 o'clock on the same day he took a diarrhœa and went to Andrew Nelson's: on the 3d of August he died. Nelson's family were in tolerable health up to this time. On the 4th one of his children was taken with the disease. Two days afterward another child and a sister were taken. On the same evening another sister was taken with diarrhœa, but was relieved by medicine taken at the onset of the attack. On the night of the 9th Mrs. Nelson, who had been washing up the cloths of Hanson that died the day before, and nursing her children, was taken violently and died the next evening. On the morning of the 10th Mr. Nelson's brother was taken and died before night. Two members of the family, only, escaped an attack.

Many incidents of a similar character occurred in the neighborhood, but we forbear to relate more of them lest they become tedious.

A circumstance worthy of remark. is, that when a patient was bad, a large number of the neighbors were sure to crowd into the house, as few of them had any fears of the communicable nature of the disease.

Mr. N. H. Ellickson, resident in the neighborhood, has taken the census of it, and made out the following table:

A large part of those who are not marked as exposed in the table, had been either living with, or in constant intercourse with those who were attending upon, or visiting cases of cholera. There were also several taken who went into houses

to live after the cholera had been there and subsided. In such cases, it is possible that the fomites remaining had not affected those in the house, because at the time not susceptible, but others coming in contact with it were poisoned. In the same manner, those living in the house, becoming susceptible, might be taken. Such phenomena frequently occur in the course of infectious diseases.

Table showing the number of those exposed—The time between exposure and attack, and the duration of the disease in those who died in three blocks in Chicago:

Names of those who had the Cholera.	When taken.	When died.	Had been directly exposed.	Time from exposure to attack.
Emigrant from Sweden,	July 7th	July 8th,	unknown.	
Ann Christine,	" 8	" 27	1	1 day
Mrs. Arns,	" 8	" recovered.	1	1 "
Arns' Child,	" 8	" —	1	1 "
A. H. Nelson,	" 8	recovered.	1	1 "
Miss Belsey,	" 14	" 15	unknown.	
Saml. Linbla,	" 15	" 16	1	7 days
Chas. Linbla,	"	recovered.	—	
Swiend Olson,	" 16	" 16	1	6 hours
Johanna Norboe,		" 19	unknown.	
Sever Lewison,	" 16	" 20	1	36 hours
Lewis Knuitson,	" 19	" 19	unknown.	
Mrs. Hymen,	" 20	" 20	1	1 day
Hymen's Child,	" 20	" 20	1	1 day
Mrs. Mayors,	" 19	" 20	unknown.	
Mayors' Child,	" 20	" 20	1	1 day
Mrs. Tiffny,	" 21	" 23	1	3 days
3 English persons,		" 20	3	uncertain
Mrs. Olson.	" 21	" 22	1	7 days
" Rohlgel,	" 21	" 22	1	1 "
Ann Gunwaldson,	" 21	" 23	1	36 hours
Mrs. Peterson,	" 22	" 23	1	7 days
Ann Swenong,	" 23	" 24	1	8 "
Mrs. Abraham,	" 24	" 25	1	1 "
N. Nelson,	" 26	" 27	unknown	
T. Elliason,		recovered.	"	
Sever Olson,	" 26	" 27	1	23 hours

Names of those who had the Cholera.	When taken.	When died.	Had been directly exposed.	Time from exposure to attack.
Sever Amonson,	July 18	recovered	1	12 hours
Mrs. Amonson,	" 19	"	1	1 day
J. A. Balkin,	" 30	July 31	1	1 day
C. Knuitson,	" 31	" 31	1	2 days
S. Cederbery,	" 30	Aug. 6	1	uncertain
Ann Breynelson,	" 31		1	1 day
Knuit Hanson,	" 30	" 3	1	12 hours
Mrs. Balkin,	" 31	recovered.	1	8 hours
Ole Oddson,	" 25	Aug. 1	1	uncertain
Saml. Cederbery,	Aug. 1	" 7	1	1 day
Mrs. Ellickson,	" 1	" 5	1	1 day
R. Johnson,	" 2	" 4	1	1½ days
Mrs. Olson,	" 3	" 5	1	uncertain
Mrs. Liberg,	" 6	" 7	Norwegian emigrant.	
" " Child,	" 6	" 7	"	"
T. Michaelson,	" 6	recovered.	1	1 "
N. Christopherson,		"	1	2 days
Mrs. Malin,	" 7	" 8	1	12 hours
— McKeef,		" 10		
Mrs. Nelson,	" 9	" 10	1	1 day
Peter Nelson,	" 9	" 10	1	1 "
Gnuder Johnson,	" 10	recovered.	1	1 "
L. Nelson, child,	" 10	" 10	1	1 "
Dinah Abraham,	" 11	recovered.	1	uncertain
Mrs. Michaelson,	" 11	"	1	5 "
Ragneld Nelson,	"	"		
S. Michaelson,	" 12	" 12	1	1 day
A. Knuitson,	Aug. 13	Aug. 14	1	1 "
Mrs. Knuitson,	" 13	recovered.	1	1 "
K. Anderson,	" 14	"	1	1 "
K. Lawson's child,	" 18	" 18	1	uncertain

SUMMARY:

Whole number of cases observed,		60
Deaths,	44	
Recoveries,	16	60
Directly exposed to the disease,	50	
Exposure not traceable,	10	60
Of those exposed there elapsed before the attack, over 24 hours in	11 cases.	
Twenty-four hours in	25 "	
Less than 24 hours in	6 "	
Time uncertain,	8 "	
Not known to be directly exposed,	10 "	60
Of those who died, there were sick one day or less,	28	
Over one day,	16	44

In this table all cases are omitted unless of decided character, and only those are put down as exposed who had been

visiting or nursing the sick of cholera; but most, if not all of those not marked exposed, had been with persons direct from the cholera chamber, or in houses where cholera patients had recently been sick. The emigrants came by way of New York and Buffalo, a few days before taken, where the disease was prevailing when they passed. It shows the length of time between exposure and attack to be generally about one day, which strictly corresponds with the history which follows.—Also, that the course of the disease generally runs about the same length of time, when it proves fatal.

Many incidents that occurred in other parts of the city strongly point to the communicable nature of the disease, a few of which are given. The following is from Dr. J. E. McGirr, of this city:

Mr. Blakie, an Irishman, who had been attending on some friends who had the cholera, was taken with the disease on the 25th of June, Mrs. Phalen, who lived in the next house to Blakie's, and her son, were taken and died on the next day. While going to the burying of her mother and brother, Miss Phalen, who had nursed them during their sickness was attacked with cholera on the 27th, and unable to go home, was taken to the house of Drs. P. and J. E. McGirr, where she died on the 29th. Her brother, who had also been with his mother and brother when sick, while attending upon her, was taken on the morning of the 29th at 7 o'clock, and died the same evening. At 12 o'clock the night after Miss Phalen died, in the same house, Dr. McGirr's little girl, who had been in the room with Miss Phalen while sick, was taken with the disease. Mrs. McGirr, after nursing the little girl all night, was taken on the morning of the 30th, and in the evening of the same day the doctor himself was attacked. The last three recovered. Three members of the family escaped.

The following history of the manner of its communication from one to another through an extensive family of connexions, several of whom lived in remote parts of the city from each

other, was also furnished me by Dr. J. E. McGirr, who attended upon them all:

Richard Welch, who lived in the north part of the city, died of cholera on the 20th of June. Mrs. Neagle attended upon him while sick. On the 6th of July one of her children died with the disease, and on the 8th another. On the 11th, Mrs. J. Welch, who had been nursing Neagle's children, died.—Her nephew, Mr. Maloney, who was with her and had been to see Neagle's children while sick, was taken on the 11th, but recovered. His mother, in the same house, took the disease on the 12th, and died on the 15th of July.

Mr. Dunnovan had been nursing Mrs. Welch, who died on the 11th. Her child took the disease on the 13th, but recovered.

Mrs. Dunn, sister of Mrs. Welch, attended upon her while sick, but lived in the South part of the city. Her child took the disease on the 15th, four days after, and died the next day. Another child took it on the 16th, and died the same day in the evening. Mrs. Dunn took the disease the next morning and died the same day. The same day, Mr. Dunn, her husband, was taken, but recovered. Mrs. Hannebury, sister to Mrs. Dunn attended her while sick on the 17th, and had a child taken on the 18th, but it recovered.

Dr. Brainard furnishes me the following incidents:

An Irishman and wife, who had recently emigrated to this place and were living on Michigan Avenue, died of the disease. The woman was taken while washing the clothes they brought with them, on the 3d of August, and died the next day. The man was taken on the 4th, and died on the 7th. On the 5th, Rev. Mr. Patterson visited the man several times during the day, returning to his family. On the next day his child was taken with cholera, but recovered. These Irish people being poor and friendless, Mrs. —, kindly attended upon them both, and superintended the funeral arrangements of the man on the 7th, passing frequently to and from her own

house. On the morning of the 8th her child was taken with the disease and died the same day.

These instances of its transmission through whole family circles and neighborhoods, in direct succession, with but an occasional variation, might be extended to any desirable number, were it not that they become tedious by extensive multiplication, and we let the above suffice.

But the introduction of the disease into the country around Chicago furnishes the best evidence of its communication that has yet been afforded.

The City is situated so that on the East lies the broad watery expanse of Lake Michigan. On the West is a wet prairie almost uninhabited for ten miles; and on the North and South the sandy lake shore is so closely bordered by the extension of this wet prairie that the country is very thinly settled. An occasional tavern for the accommodation of travellers, constituting the principle habitations.

Thus, it will be seen, that the city is almost isolated on all sides.

When the cholera became prevalent, the intercourse with the country was almost suspended. Those who live here, however, will bear me testimony that the winds blow freely and frequntly in all possible directions, so that there could scarcely be said to be any obstructions to the free and rapid passage of "*cholera atmosphere.*"

A circumstance at my office enables me to say positively that during the months of May and June, the winds were from the East to the West a considerable part of the time. Of this a stove pipe, a little distance from my East window, frequently and faithfully reminded me.

By reference to a table in a subsequent part of this article it will be observed that at the time the cholera began to prevail extensively in the country west of Chicago, about the 1st of Aug., the winds were never from the east.

Under these circumstances, if the disease was atmospheric

in its origin, whether the poison be animalcular, cyptogamous, carbonic, or malarial, we should expect the rich and densely populated country beyond the surrounding prairie, to be speedily brought under the baneful influence of this worse than Simoom after the disease broke out in Chicago. But the history of its spread here, as elsewhere, shows it to correspond with the amount and rapidity of human intercourse.

Instead of its accustomed 300 miles per month, we find it prevaling here for two months before any number of cases occurred in the county, and it was not until the disease had been here three months that the county became generally affected. By physicians from the country who visited the city during this remarkable exemption from cholera; I was informed that the health was unusually good there, for the season of the year. But the manner of its introduction into the different neighborhoods of the surrounding country, forms the strongest link, in the history of the spread of the disease, for the support of the doctrine of communication.

James Kerr, resident a few miles distant, and well acquainted with the persons referred to, and Dr. Maxwell, of this city, have furnished me with the following account of the occurrence of the disease at Summit 12 miles South-west of Chicago on the Ills. and Mich. Canal.

This neighborhood had been quite healthy, and no case of the cholera had occurred among the inhabitants up to this time.

On Sunday, the 17th of June, a man came from Chicago to remain for a few days, on business, at Mr. Heacocks, was taken with the cholera and died the next day.

Mr. Heacock was taken with the disease and died on the 23d. A son on the 24th; Mrs. Heacock, another son, and an Irish girl, who had gone from Chicago to nurse them, died on the 25th. Another son was also taken very bad at this

time but recovered. A daughter who was taken and brought to the city, recovered.

Mr. Webster, who assisted in nursing and burying the last of the above who died, lived at Esq. Brown's, in the neighborhood, was taken on Tuesday the 26th and died in a few hours.

On the next day Esq. Brown was taken and died on the 28th. On the evening of the same day, Mrs. Brown who came to Chicago, was taken as she entered the city and died early the next morning. Mr. Guthrie, her father, and Mr. McGlashen, her brother-in-law, while taking the corpse to Summit for burial, in a close carriage, were both taken while crossing the prairie. Mr. Guthrie survived a few days and died, Mr. McGlashen recovered.

Thos. Ferrity was at Mr. Heacocks, while the disease was producing its awful ravages in the family, nursing the sick, he went home at night unwell and told the family, with whom he lived, to leave the house for he was going to have the cholera. The family obeyed his warning, and the next day he was found in the house dead and alone. The family that fled escaped the disease.

Mr. Bankson, who lived near Ferrity's, and about a mile from Heacocks, had also been there while they were sick, took the disease, and died the same day. Mrs. Bankson was attacked about the same time. Mr. Grant, another neighbor, was at Heacocks rendering assistance to the sick, but escaped. His son, who attended the funeral of some of the family, however, took the disease soon after and died. These were all the cases that proved fatal, and the neighborhood became quite healthy by the 2d week in July.

Mr. Kerr observed that but two or three of those who rendered the kind offices of assistance to the sick during this terrible scourge escaped.

Dr. Knapp, who visited them professionally and remained with them sometime, had a severe attack immediately after.

The neighborhood ten miles west of this city at Doty's tavern, at the terminus of the plank road, on the great western thoroughfare from the city, has thus far escaped; but one case having been brought there from town, which was not admitted, but sent back to a house in the suburbs, where he died.

The following history of the appearance of the disease in the country near Aurora, on Fox River, 40 miles west of Chicago, was communicated to me by Mr. Favour, apothecary and student of medicine of that place:

The first case that occurred was about five miles west of Aurora, in the person of a pedlar who was direct from Chicago. He stopped at Mr. Sanford's, a farm-house on the road, on Wednesday the 27th of June, and died of cholera on the following Sunday. On Monday Mr. Sanford was taken with the disease, but recovered. Several members of his family were soon after taken with diarrhœa, but all recovered speedily, and no other case occurred in the neighborhood or in the surrounding country, until the 22d of July, when Mr. Van Fleet, a farmer living three miles north of Aurora, returned from Chicago, where he had been to market, and was taken with the disease the same night. He died the next day. On the 24th, the day after he died, Mrs. Van Fleet, who attended upon him, was taken and died in 18 hours after the attack. On the 27th, a brother of Mr. Van Fleet, who lived within a short distance of his house, was taken. This was all of the disease that had occurred in this neighborhood, which was otherwise healthy up to that time.

About five miles distant from Mr. Van Fleet's, and eight miles from Aurora, a Mr. Leech was taken with cholera on his return home from Chicago, and died on the 24th of July. His son was subsequently taken. These were the first cases in that neighborhood.

The following account of the appearance of the disease in two neighborhoods, is furnished by Dr. D. W. Boyd, of Brush Hill, who attended upon the cases referred to. The Buck

Horn tavern is 15 miles north-west of Chicago on the Milwaukee road, and is kept by the doctor's brother.

On the 3d of July, Mr. Biddle, who lived two miles beyond, was taken with cholera on his return from Chicago, and could get no farther than Mr. Boyd's tavern. After nursing him 2 days, Mr. Boyd was taken with the disease on the 6th.

Soon after five others, being all of his family, were taken with diarrhœa. All these recovered, being early put under the influence of calomel, camphor, and opium. The neighborhood, so far as the Dr. was able to learn, and his brother's family in particular, had been healthy up to this time.

At Flagg Creek, twenty miles a little south of west from Chicago, the disease made its first appearance on the 22d of July, under the following circumstances:

Mrs. Martin, a citizen of Lockport, 35 miles south-west of Chicago, on the canal, came to the city on the 18th of July, and remained three days. She was taken with a diarrhœa on the 19th, and on the 22d went to Mr. Helmick's at Flagg Creek settlement. At 10 o'clock that night she was taken with rice-water discharges and died at 10 o'clock the next morning. On the 27th, four days after this case died, J. T. Webb, a sailor, came from Chicago to Mr. Glaton's who lives, about 80 rods from Helmick's. He had a diarrhœa when he left Chicago, where he saw a patient sick with cholera. He was taken bad on the 27th, and died on the 28th of July. Mr. Helmick, who assisted in nursing Webb, was taken with diarrhœa on the day he died, and on the 29th had a severe attack of cholera, but recovered.

Mr. Craigmile, who also assisted in nursing Webb, was taken with a diarrhœa on the day he died, and on the 30th it was a well developed cholera, but he recovered.

On the 31st a Norwegian, who lived at Galton's and assisted in nursing and burying Webb, was taken with cholera and also recovered. He had been to see Craigmile, the case above referred to, the day before.

On the 3d of August, a German, who lived at Craigmile's above referred to, was taken with cholera, but also recovered.

In reference to this history, Dr. Boyd remarks: "Previous to the above cases the neighborhood had been very healthy.—Diarrhœa now became general in the families of Helmick, Craigmile, Glaton, and others adjacent, excepting two families who lived on the Carrington farm, about three-fourths of a mile distant from Helmicks, the members of which kept away from the cholera patients. Diarrhœa continued to 17th of August and subsided. It was easily managed by the use of calomel, camphor and opium."

The Dr. relates the case of a Mr. Bush, living at the house of Mr. Farwood, who had not been exposed (?) that occurred on the 26th of August, a day or two before he wrote. which he considers a victim of fear. (If fear produces cholera, ought we not to meet with cases continually?) But, says the Doctor, the man had been in a rage because a girl came to live in the family, from a house where two men had died of cholera.

The circumstances of its appearance at Naperville, 30 miles west of Chicago, were furnished me by my colleague, Prof. Brainard, who, a few days ago, returned from a visit to that place.

Some weeks before any case of cholera occurred there, tests for ozone became quite dark. About the 22d of July, an Irishman, by the name of O'Brien, returned from Chicago, where he had been visiting a relative who died of cholera.—Soon after his arrival at home he took the disease and died. In about three days after, a German girl, who had been working at his house, took the disease and died on the 26th. Dr. Sowers attended upon the girl, and took the disease and died the next day. Dr. Hough, attended upon Dr. Sowers—took the disease and died two days afterward, about the 20th of July. Miss Rouse, who lived at Dr. Sowers, remained at his house about 10 days for fear of carrying the disease with her, packed up her clothes, went home to her fathers, three

miles in the country, and soon took it. About the 17th of Aug. her father was taken with the cholera, and died on the 20th. Mrs. Rouse, his daughter-in-law, who had been with him while sick, took it and died on the 23d. Her husband took the disease and died the same day. A son-in-law, who lived in Naperville, was there attending upon the sick above referred to, took the disease on the 37th, and died in a few hours.

A man who had lately lost his wife and child by cholera, came to Naperville, and died of the disease at the Pre-emption House on the 24th. Mr. Snyder, who roomed with him, took it died the next day. Mr. Mackintosh, who boarded at the same house, took it and died on the 26th. Up to and during this time, the country around it, and the village containing about 600 inhabitants, enjoyed good health, with these exceptions.

Dr. Kimberly, of this City, furnishes me with the following account of the disease as it occurred in the neighborhood of Cazanovia, 15 miles west by north-west of Chicago; where nine persons died in rapid succession; the neighborhood having been healthy up to the time mentioned.

About the 20th of July, Mr Barnum came to Chicago to attend the funeral of his brother, who died of cholera. He returned home in the evening after attending the funeral, was taken with the disease the same night, and died in a few hours.—Three of his neighbors, who visited him while sick, were taken immediately afterwards, and died in a short time after their attack.

In the Dutch Settlement, near Mr. Barnum's, the disease was introduced by a German, who was taken the night after going from Chicago, a short time after the fatality above referred to, and died in about 12 hours. Four others, who visited him while sick, were taken soon after, and all died within four days. These were all the fatal cases that occurred, and the disease soon entirely disappeared.

Dr. J. W. Freer, of Wheeling 20 miles north-west of Chicago, writes as follows:—

"Below you will find a statistical account of the cases of cholera, that you desired me to report; I have given you the exact facts as they occurred in regular order. But there was several other cases of mere symptoms that seemed to arise from the same sources, which I thought not worth while to report. For instance, I myself had the symtoms premonitory to cholera, and several other young men who attended upon the sick.

"Now does it not seem that the young German was the starting point from which the disease radiated; certainly his exposures were sufficient, although his case was not one of pure cholera. Mr. Bruce was the only person who had been exposed in Chicago, but you will observe that he was the third in order of attack, providing the two first were in part cholera.

"Aug. 17th. German, name not known—had diarrhœa a week previous to the attack; pulse full, rather hard; headache; skin warm, but moist; griping tenesmus,—discharges resembled washing of meat; cramping in the legs; vomiting was excessive, attended with intense thirst.

"Had been to Ohio in the height of the cholera season. Habits very irregular, having lived here and there, as it happened. Had been to Mr. Culvers 2 or 3 days. Discharged Aug. 20th convalescent.

"Aug. 20th. Child of Mr. Culvers, age 3 years—symptoms similar to the case above; considered both cases as dysentery and cholera mixed. The child did not cramp as much as the German, but the vomiting was more profuse. Cholera symptoms ceased soon, but the dysentery continued 10 or 12 days.

"Had been away from home for several days, at a relations. Returned 2 days previous to attack, had eaten green trash at will. Had had slight diarrhœa for several weeks. Discharged Aug. 30th convalescent.

"Aug 20th. Mr. Bruce—taken in the evening with diarrhœa; color light towards morning; vomited, and purged rice-water discharges; cramped severely in every limb and abdomen. Saw him at 7 o'clock A. M. in that state; skin as if par-boiled; tongue cold, and nearly pulseless at the wrist; urgent symptoms ceased in about two hours.

"Had been at Chicago 3 times during the cholera season; The last time about a fortnight before the attack. Had been boarding and working at Mr. Culvers several days previously ate his last meat there—a man of steady habits, had eaten scarcely any vegetables. Discharged Aug. 24th.

"Aug. 21st. Mr. Culver—had been subject to diarrhœa for two or three days previous to the attack, which was about two o'clock A. M. Commenced with the characteristic discharges of cholera, with violent cramping. Found him in that state at 7 o'clock in the fore noon. Remedies seemed to have no effect upon him.

"Had not been in Chicago during the cholera season. Family had lived almost exclusively upon vegetable diet. Had had a villainous stew of pot pie 2 or 3 days before, from which he and the family dated their sickness. Died at 11 o'clock A. M., same day.

Aug. 22d. Mrs. Culver, mother of Mr. Culver—diarrhœa, slight vomiting; yielded to treatment without the acute stages of the disease coming on.

Had been at home continually during the epidemic. Discharged Aug. 24th.

Aug. 24th. Mrs. Culver, wife of Mr. C.—Cholera symptoms the same as the old lady.

Same habits of living, had not been away. Discharged Aug. 27th.

Aug. 25th. Jas. Alexander—Cholera symptoms; yielded to treatment at once.

Aug. 24th. Mr. Buskirk—symptoms nearly the same—some slight cramping; recovered in two days.

The following extract of a letter from my colleague, Prof. McLean, dated August 22d, gives an account of the disease as it appeared in Jackson, Mich., the place of his residence, a town of 3,000 inhabitants, situated on the Michigan Central Rail Road:

"Thus, we passed along with but few diseases, and less than the usual number of deaths, until the latter part of July, at which time we had a number of deaths in quick succession; all by cholera, and under the following circumstances:

"On Tuesday, the 24th of July, Mr. and Mrs. Cooper, two very aged persons, arrived here from the State of N. York. On their way they remained a number of days in the city of Detroit, and in that part of it where the cholera was prevailing at the time. On Thursday the 26th, two days after their arrival there, the old gentleman, after having had the premonitory symptoms a short time, was violently attacked with the disease and died on the following day, and the body was not interred until the next, nearly 24 hours from the time of death. During this period, the family, consisting of 8 persons, remained and slept in the house, which had some four or five different apartments. Sunday morning, July 29th, (the day after the body was interred) the old lady was taken down with the cholera; and also, about the same time, a son, and then one after another of the family in quick succession, and in less than 48 hours they were all dead, excepting one small girl, who, on Sunday morning, was sent away to one of the neighbors. While the others were sick and dying, another of the family, a young lad about twelve years of age, was also sent away from home; but when in the street, was taken with the disease, and carried to a neighboring house, where he died within the day. The woman of this house became much alarmed, and left, but the man remained at home. On the following day he undertook to clean and white-wash the

room, and slept in it, alone, over night. The next day, about 10 o'clock A. M., he was taken very suddenly with cholera. This case yielded to treatment.

"During the fore part of the same week, a son of Mr. Bennett, who lived on the opposite side of the street from that house where the mortality was so fearfully great, was attacked with the disease, and died on Wednesday. This young man had not been with the other cholera cases, although he lived close by, but his father had been with them much of the time, in consequence of which the young man was very much alarmed.

"The number and suddeness of these deaths created quite an excitement in town, and but very few visited the sick, and many left the place. None of the attendants were attacked with the disease, unless it be that the diarrhœa, which some of them had soon after, might have terminated in it, had it not been checked.

"Mr. Cooper's family did not reside in an unhealthy part of the town—they lived in a neat frame house—were in comfortable circumstances, and cleanly in their habits; and the same may be said in regard to Mr. Bennett's family.

"It is now quite healthy, and in fact has been so all Summer. We have not had a death by cholera since that of Mr. Bennett. All the deaths were confined to those two families, nine in all, eight out of one, and one out of the other. The weather so far, this month, has been cool and pleasant; and ever since the occurrence of those cases, the town has been remarkably healthy.

"I have frequently experimented for the purpose of ascertaining the condition of the atmos phere in regard to Ozone, but at no time discovered any marked indications of its presence."

I have been at great pains to collect the foregoing history, and in all my enquiries have not met with a single instance in

which the disease made its appearance in a neighborhood, except there had been communication with persons or places affected with it.

I have been particular throughout to give names and dates that the correctness of my statements may at any time be investigated—a precaution deemed necessary in all such investigations, but more especially so in this case, where under the most favorable circumstances for observation such a mass of testimony is presented.

And this is the history of the spread of cholera as bearing upon the doctrine of its communication. First, it originates in India. From thence it travels over Asia and Europe, following the lines of human intercourse. It twice pursues the same general course, and twice appears upon the American coast, and in 1848 at two points nearly simultaneously. It stops its ravages under quarantine regulations at the one, and without them extends rapidly at the other. In all these instances of its appearance in the country, it breaks out immediately after the arrival of ships from Europe with cholera on board. It extends from New Orleans up the vast extent of the Mississippi and its tributaries, never appearing at a place until a vessel arrives from the seat of its prevalence with the disease on board.

It confines itself for months strictly to the banks of these streams, in its first appearance through the vast region of country that they meander. It spreads to the interior from these river towns with a rapidity proportioned to the intercourse with the places where it first makes its appearance. It prevails in Chicago for months before it extends to the country around it, where there is an interruption in the intercourse with the country and a city isolated from the settlements around it. It spreads to the surrounding country only as persons have intercourse with the city during its prevalence. It extends through different neighborhoods in the country only as far as the communication with the sick is kept up, and rapidly

subsides in all small communities. As if on account of its rapid communication those susceptible to its influence at the time, are speedily taken, and for want of others to take it, it entirely disappears. It commits its greatest ravages in particular neighborhoods, and in Chicago, where the intercourse among the inhabitants is most intimate and frequent.

In sixty persons affected in one neighborhood direct communication can be clearly traced in fifty, and indirect in nearly, if not quite, all of the remaining ten.

In most cities its greatest prevalence is transferred from one neighborhood to another. In a large number of instances the disease can be traced as communicated from one to another through whole family circles. And during its subsidance the fact has been remarked that the cases that lingered in our midst in this place, generally occurred in houses where the disease had been before, and often affected those engaged in washing up the clothing and cleaning the sick chamber, as if they might have come in contact with the fomites of communication.

Notwithstanding neighborhoods of limited extent seem to be brought under the influence of the poison, do not these facts show conclusively that the disease is communicated? That it is self propagating? That in its action on the system it developes the morbific agent by which it is extended to others? Certainly no other reasonable explanation can be given of its course and progress.

The principle objection to the doctrine of contagion in cholera, is found in the exemption of persons exposed from attacks of the disease; a circumstance which I believe is entirely overated, as most persons in cities where the disease is prevalent, feel more or less of the symptoms of the disease, generally a sense of contortion in the abdomen, with or without diarrhœa. At least this has generally been the report given, and especially of those much among cholera patients. In such cases the powers of nature or early medication as is gen-

erally resorted to by nurses and physicians, seems adequate to resist and throw off the poison. We know that the contagion of all diseases, meets with resistance from the idiocyncracy of numerous individuals. Now if one or two persons in a community, by this cause, may be exempt from the contagion of one disease, may not half, or two thirds of them be in like manner fortified against the poison of another?

When five out out of six persons exposed to the coatagion of syphalis, scabies, or gonorrhœa, do not take the disease, (and this proportion is by no means uncommon) does any one deny that the sixth contracted it in that way? Again, would not the exemption weigh equally against a cause in the atmosphere? Yes! more forcibly, for in such a cause the whole city or community must be immersed, and consequently exposed.

And it is said that it often appears where no communication can be traced. How many of the assertions to this effect are gratuitous, I cannot say, but I do know that in numerous instances where they were made in this community, a little investigation proved the contrary to be the fact. And it is very consistent that it should be so, for it is easy to assert that no communication was known, and it requires much time and patient investigation to ascertain the facts of each case.—But the difficulty of tracing the communication, would, if admitted as valid argument, prove the non-contagious nature of nearly all diseases. Prof. Dickson* says he attended in the winter of 1847–8, forty patients attacked with small-pox, "not one of whom had ever seen a case, or consciously visited an infected neighborhood."

Aside from its being communicated by inoculation, and the fact that fewer people are naturally fortified against its contagion, there would be more difficulty in proving variola contagious than cholera.

I am satisfied that the communication in cholera can be more certainly traced than in rubeola or even variola, because a less

*Amer. Jour. Med. Sci. for July, 1849.

time elapses between exposure and attack. This rapidity of the action of the poison on the other hand makes it by far more difficult to follow the disease in its diffusion, for it will seem to appear simultaneously in distant parts of a city at a very early day after its introduction. The rapidity of the disease too, may account for the greater prevalence at the outset and gradual subsidence, as those acutely susceptible are speedily affected, while in the decline only those take it who subsequently become proper subjects.

And again it is asked, if cholera be communicable, why do not the physicians take it? In reply to this, I may refer to the fearful mortality in our ranks by the pestilence, which has laid low some of our brightest ornaments; and to the fact that almost all of us have suffered from the early stage of the disease. I have no doubt that there are more cases of cholera among physicians in proportion to their numbers, than any other class of persons, but as they are constantly on the alert for the first symptoms of the disease, and understand the dread penalty of neglecting treatment, they generally do not allow it fully to develop itself. Notwithstanding this, more than half of my professional acquaintances in this city have suffered quite severe attacks of the disease during its recent prevalence.

Cholera is said not to be contagious because persons are liable to second attacks, and the disease can be interrupted in its course. Now are not the diseases referred to, (syphilis, scabies, and gonorrhœa) of undoubted cotagious nature, and liable to the same objections? Most certainly. And if they were not, have the objections truly any force? No! It is because we continually try to study one disease by looking at another, that we so often run astray. One specific disease can furnish us no data from which to judge of the nature of another. It is because cholera is a specific disease, and differs from any other, that it needs to be studied by

actual observation, not by comparisons; and because all diseases are modified by climate, the habits of the people, avocations, and regimen, they require to be studied in the varying conditions and circumstances under which they occur in different countries and regions of country.

But it is urged that quarantine regulations, and sanitory cordons, are not competent to arrest the disease. This does not seem to be true in all instances, for Pittsburgh in 1832 and 1849, New York in 1848, and other places of smaller importance, would seem to indicate that at least some good has been effected by them. But admitting it to be generally true that they are inefficient, it would require that these regulations be conducted upon the system of complete non-intercourse, which I believe has, as yet, never been tried, before their failure could constitute a reasonable argument against the doctrine of communication.

But let us glance at some of the various theories that have been advanced in reference to the cause of cholera, and see how far each is entitled to consideration, and which will best explain the mode of propagation of the disease.

Atmospheric Theory.—It has been the fashion in all ages of the profession, where the mysterious nature of a disease was such as to leave the observer in ignorance of its cause, rather than acknowledge the humiliating fact, to forthwith attribute it to some changed or unhealthy condition of the air. Particularly in reference to all epidemics, is the atmosphere made the scape-goat to bear off the sins of our ignorance, and most admirably does it subserve the wanted purpose, for who can prove that it is not contaminated—that there is not floating in it the fatal miasm? Who can prove a negative, at least until some evidence is given to combat? Certainly no one; and in this consists the strength of the doctrine of the atmospheric origin of cholera. Has any one detected a change in the character or composition of the air, to which might be at-

tributed the baneful influence? No! Has any one offered any other evidence of the doctrine, than that people take the cholera while breathing? If so, I have not seen or heard it; and the same argument might equally well find the poison in in the influence of the moon or the stars.

To explain the spread of cholera by the atmospheric theory, requires us to *suppose* in the first place, that the air is contaminated. Then that this contamination is self-propagative by fermentation, vegetation, spawning, or otherwise, or else the poison would soon become so diluted as to run out. Then that this poisoned air travels regardless of the course of the winds.—That small bodies of it may go to great distances in very narrow channels.—That a streak of it crosses the ocean three thousand miles from Europe to America, and strikes at a single point, and invariably that point a sea-port town.—Then that it will tarry a month at the quarantine within eight miles of New York city, without going farther, and depart for parts unknown.—Then that it will travel the whole length of the navigable waters of the Mississppi and its tributaries without varying to the right or to the left, and that it will hover over ships, steam-boats and caravans as they journey on their way. And finally, that like contagion, it follows individuals in their journeyings to the interior, and where they stop it for a time, hovers immediately around them.

After having made all these suppositions to found its existence upon, would it not be folly to attempt by the same, or any other kind of reasoning, to show this miasm to be either animalcular, cryptogamous, or gaseous?

Telluric Emanations.—In reference to the telluric origin of the disease, I have only to say that it is a strange freak of Mother Earth that sets her to giving out her poisonous emanations in such long and narrow streaks as mark the course of the cholera up the Mississippi and its tributaries.

The Electrical Theory.—Electricity has become a formidable rival to malaria, in reputation for the production of disease.

But as evidence in reference to its effects are more tangible, and its existence cannot be doubted, the probabilities are strong that it will not long be able to sustain the unequal contest.--- But it is in reference to electrical disturbances causing the cholera, that we propose to speak.

Audrand communicated to the Academy of Sciences, of Paris, on the 10th of June last, that he had proved that the cholera depended upon the absence of the proper amount of electricity, as his machine refused to give its sparks in clear weather during the prevalence of cholera in Paris, but that the machine, upon the decline of cholera, again threw out brilliant sparks, "it might almost be said, with delight, as if aware of the good tidings it was bringing." This is the strongest evidence, of the only positive kind, that has been afforded to this theroy. From this single result of testing, he concludes as follows: "The question now appears to me entirely solvod." In Russia, and other places, similar experiments have resulted in the same way. Dr. Bell,* of London, finds in the electrical nature and condition of the food used by cholera patients just before attacked---the subsidence of cholera after storms, and the working of the electrical machine, ample maierials for the explanation of the production of cholera. Now ought not every one to know that the electrical machine is very irregular in its action, even when there has been no cholera for years? And storms by no means uniformly have the effect of lessening the disease. And do not our omniverous people eat food of all possible electrical qualities every year? Certainly, this kind of reasoning, or rather jumping at conclusions, is a fair specimen of the *post hoc, ergo propter hoc.* But it is said that the cramps and nervous twitchings may result from the action of electricity. Most certainly they may, but in a far greater measure from doses of strychnine.

The reasoning in favor of the electrical theory of cholera may be very learned, and indeed is, to a great extent,

*Newspapers.

excessively so, but the evidence is too small in its favor, and too great against it, to entitle it to very serious consideration. However, as it has attracted so much attention from the savans of the East, we cannot pass from the subject without giving it further attention.

Is not the electrical communication between all parts of the world almost instantaneous? Then why have for a month at Staten Island, the fatal absence of the fluid, while it is all right in the city of New York? And why have the disease occupy one year in extending from St. Petersburgh to Chicago? Might not the cholera be produced at any time, if absence of electricity caused it, by insulation and exhaustion? But in all the experiments with the machine since its invention, we hear of no case having been produced, even of cholarine.—We find the telegraph wires faithful in announcing from its very seat the intelligence of its greatest prevalence. Nor have we been able to learn that they do not work as well during the prevalence of cholera as formerly.

As bearing upon this point, we introduce the following table, by which it will be perceived that, as has been said by Prof. Olmstead, the electricity during cholera is subject to the same influences as at other times—moisture interfering with, and dryness favoring the evolution of the fluid. It will be observed that about the time of the greatest mortality in Chicago, the machine gave its longest sparks; longer, the gentleman* said who worked it, than he had seen produced by it at any former time.

The table, which was made up from the record kept at the Chemical Laboratory of Rush Medical College,† under the direction of Prof. Blaney, and the reports of the City Board of Health, is interesting, as showing the correspondence between the conditions of Electricity, Ozone, the Winds and

*Ferris Deming, Assistant in the Laboratory.

†Porf. Blaney informs me that he has instituted a series of experiments and observations, of which this table will be a part, for ascertaining the relation between tests for ozone and disturbances in the electrical conditions of the atmosphere, &c.

Weather, and the prevalence of the cholera. As ample thermometrical statistics are on record from other places that bear upon the point, they are omitted.

It may be well to observe that during the period included, the temperature has been generally moderate, and the weather unusually fine and uniform for this place. However, at the time of the great increase in the mortality, about the 20th of July, the weather for a few days only, was excessively warm and sultry:

Table showing the length of the Electrical Spark on the Machine —The Test of Ozone—The course of the Winds—Character of the Weather, and the Bill of Mortality from Cholera each day for thirty-five days during its greatest prevalence in Chicago.

Date.	*Length of Electrical spark.*	*Indication of Ozone, S. side of building.*	*Indication of Ozone, N. side of building.*	*Winds.*	*Weather.*	*Mortality.*
July 25, 7 A. M.	none					
" M.	none	light	light	light	damp and	
" 7 P. M.	none			northerly	rainy	11
July 26, 7 A. M.	none			northerly	rainy	
" M.	¼ inch	medium	medium		clear	
" 7 P. M.	¼ inch				clear	18
July 27, 7 A. M.	¼ inch					
" M.	2 inch	medium	dark	northerly	clear	20
July 28, 7 A. M.	2 inch					
" M.	1 inch	dark	dark	southerly	clear	
" 7 P. M.	1 inch					14
July 29, 7 A. M.	none				cloudy and	
" M.	none	very dark	very dark		rainy	
" 7 P. M.	none				thunder	18
July 30, 7 A. M.	1 inch					
" M.	2½ inch	medium	medium	westerly	clear and	
" 7 P. M.	2½ inch				dry	14
July 31, 7 A. M.	2½ inch				clear	
" M.	3 inch	medium	medium	southerly	dry	
" 7 P. M.	2 inch					25
Aug. 1, 7 A. M.	1½ inch					
" M.	3 inch	medium	medium	southerly	clear and	
" 7 P. M.	3 inch			strong	dry	21
Aug. 2, 7 A. M.	2½ inch					
" M.	2 inch	medium	medium	southerly	clear and	
" 7 P. M.	1 inch				dry	15
Aug. 3, 7 A. M.	½ inch				dry	
" M.	none	medium	medium	southerly	rain, thunder	
" 7 P. M.	½ inch				clear	9
Aug. 4, 7 A. M.	½ inch				clear and	
" M.	1 inch	medium	medium	northerly	dry	
" 7 P. M.	½ inch					11

Date.	Length of electrical spark.	Indication of Ozone, S. side of building.	N. side of building.	Winds.	Weather.	Mortality.
Aug. 5, 7 A. M.	none			southerly	rain and	
" M.	none	dark	dark	north	thunder	
" 7 P. M.	none					12
Aug. 6, 7 A. M.	½ inch					
" M.	2 inch	medium	light	northerly	clear and	
" 7 P. M.	1 inch				dry	7
Aug. 7, 7 A. M.	½ inch				dry	
" M.	½ inch	dark	medium	southerly	cloudy and	
" 7 P. M.	½ inch				damp	14
Aug. 8, 7 A. M.	none					
" M.	none	dark	dark		damp,cloudy	
" 7 P. M.	½ inch			southerly	clear	6
Aug. 9, 7 A. M.	½ inch				damp	
" M.	½ inch	medium	medium	northerly		
" 7 P. M.	1 inch				dry	7
Aug. 10, 7 A. M.	1 inch					
" M.	1½ inch	medium	medium	still	clear and	
" 7 P. M.	2½ inch				dry	13
Aug. 11, 7 A. M.	2 inch					
" M.	2½ inch	light	light	northerly	clear and	
" 7 P. M.	2 inch				dry	9
Aug. 12, 7 A. M.	2 inch					
" M.	1 inch	dark	dark			
" 7 P. M.	½ inch			southerly	cloudy	8
Aug. 13, 7 A. M.	none					
" M.	none	medium	medium	southerly	rainy	
" 7 P. M.	none					5
Aug. 14, 7 A. M.	none					
" M.	1 inch	medium	medium		dry	
" 7 P. M.	2 inch			northerly	clear	5
Aug. 15, 7 A. M.	1 inch					
" M.	1 inch	medium	light	southerly	clear	
" 7 P. M.	1 inch					11
Aug. 16, 7 A. M.	½ inch					
" M.	none	light	light	southerly	damp	
" 7 P. M.	none					4
Aug. 17, 7 A. M.	none					
" M.	none	medium	medium	northerly	damp and	
" 7 P. M.	none				rainy	7
Aug. 18, 7 A. M.	none					
" M.	none	dark	dark	northerly	damp	
" 7 P. M.	none					2
Aug. 19, 7 P. M.	none					
" M.	none	dark	dark	southerly		
" 7 P. M.	none			northerly	rainy	5
Aug. 20, 7 A. M.	none				damp	
" M.	½ inch	light	light	northerly	dry	
" 7 P. M.	½ inch					3
Aug. 21, 7 A. M.	½ inch					
" M.	½ inch	medium	medium			
" 7 P. M.	none			southerly	damp	1
Aug. 22, 7 A. M.	none				rained all n't	
" M.	none	light	light	southerly		
" 7 P. M.	none			northerly	rainy	3

Date.	Length of electrical spark.	Indication of Ozone, S. side of building.	Ozone, N. side of building.	Winds.	Weather.	Mortality.
Aug. 23, 7 A. M.	none					
" M.	none	medium	medium	southerly	damp	
" 7 P. M.	none					5
Aug. 24, 7 A. M.	none					
" M.	none	dark	dark	northerly	clear	
" 7 P. M.	none					4
Aug. 25, 7 A. M.	none					
" M.	none	dark	medium	southerly	dry	
" 7 P. M.	none					2
Aug. 26, 7 A. M.	none					
" M.	none	medium	medium	southerly	rainy	
" 7 P. M.	none					5
Aug. 27, 7 A. M.	none				damp	
" M.	¼ inch	medium	medium			
" 7 P. M.	none			northerly	dry	3
Aug. 28, 7 A. M.	¼ inch					
" M.	none	medium	medium	northerly	dry	0

In this table it will be oserved that during the greatest mortality the spaak was the longest, and during the decline of the disease, the manifestation of Electricity was very much diminished.

There was considerable variation in the appearace of the ozone tests, but there is no relation between them and the prevalence of cholera as shown by the mortality.

The winds were mostly from the North or South, and the weather was the best while the disease was the worst.

Ozone.—As to Ozone, I have not seen the undeniable evidence of its existence. I am by no means certain that the decomposition of Iodide of Potassium, which, when mixed with starch forms the the test for Ozone, is not the result of the action of the atmosphere modified by light, heat and moisture. Be this as it may, it would seem that the observations given in the foregoing table, and those made at Naperville, and at Jackson, Mich., would indicate that it has but little to do with cholera.

Boundaries.—It is still gravely asserted that cholera has an affinity for limestone districts, and a tendency to spare the regions of granite; but these, like a host of other conclusions, are drawn from insufficient data. That granite regions will

always be partially exempt from the disease is probable, at least until high and craggy mountains shall impose no barrier to human intercourse, and become elligible sites for great commercial cities. But the prevalence of the disease at Staten Island, a granite formation, on the Green Mountains of Vermont, at Boston, Lowell, and various other places on the regions of primative rock would at once destroy the distinction.

Cholera is subject to no boundaries except those that prevent human intercourse. We find it in the densely populated city, on the dreary desert, and wild western prairie. Laying low the inhabitants of the princely mansion, the cottage, and the Indian wigwam. Traversing all climates, from the scorching Indias, to the regions of perpetual snow; and extending from the Celestial Empire of the East, to the golden valleys of California in the West.

Attacking alike the indigent and the affluent; the filthy and the cleanly; the reckless debauchee and the prudent valetudinarian. The young and the old, the black and the white, the yellow and the red man. In the dreary home of the latter on the extensive plains that stretch out from the Missouri river to the Rocky Mountains, it is now committing its fearful ravages. And as if to put the blush upon our boasted knowledge and philosophy—our enlightened mode of investigation—our learned and logical reasoning—from his own observation he announces to his comrades what its history indicates as the true mode of its propagation, and commences to take vengeance upon the white man for bringing it among them.

ARTICLE XI.

On the use of Chloroform in Periodical Neuralgia. By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College.

The districts where periodical fevers prevail, are also those where periodical neuralgias are most frequently observed; and these latter constitute a class of disease generally more obstinate and often more fatal than the febrile disease with which they are associated. Having often found them resist the action of quinine, arsenic, iron, narcotics, &c., I was induced, at length, to try the effect of the inhalation of chloroform, and with results so satisfactory that I am induced to offer the following cases, in illustration of its beneficial operation, to the profession.

I was called to visit Mrs. D., of Chicago; she was affected with a severe pain in the left eye, to which she had been subject, in the spring, for several years previously, and which has each time proved very severe and difficult of cure. The disease here existed a few days, occurring daily at 10 o'clock, A. M., occasionally attended with coldness of the extremities, great heat in the head, with excruciating pain in the eye, with profuse flow of tears and photophobia. The pain lasted in all its intensity about four hours, when it gradually diminished and passed off, its cessation being attended by a profuse perspiration.

The bowels being free, the patient was ordered sulph. quinine grs. x., pulv. opii grs. iij., at 6 o'clock A. M., and be repeated at 9 o'clock, just before the expected return of the paroxysm. It returned with its usual severity, and the next day the same doses were repeated without any better results. At 12 A. M., of the same day, being called, on account of the intensity of the pain, I took a bottle of chloroform, and administered gradually by inhalation: the pain was greatly miti-

gated, and by frequent application was kept so light as to be easily borne. On the third day I was present at the hour of accession, and as soon as the symptoms of it appeared, used the chloroform to the effect of perfect insensibilty. All symptoms immediately ceased, the patient fell into a sleep, with perspiration; and for upwards of a year, while under my observation, had no return of the disease, and enjoyed perfect health.

Case II. Mrs. A., residing ten miles north of Chicago was seized on the——Dec. 1848, with a severe pain in the left eye, extending to the forehead and temple, which was so severe as to cause delirium; with coldness of the extremities, and pulse scarcely perceptible at the wrist. The husband called for me in great alarm, but being unable to visit her that day, I gave him a prescription of sulph. quinine grs. v., pulv. opii gr. j., to be repeated every 3 hours till 6 doses had been taken.

On his return home, having been absent about three hours, he was much surprised to find his wife free from pain, and supposing all danger past, neglected to give the medicine until the next day, when, at the same hour, the attack returned. I saw her about three hours after the attack and found her in a darkened room, with a bandage on her eyes, hands and feet cold, great heat in the head, and weak pulse. She had taken one dose of the medicine without any effect.

I immediately put a few drops of chloroform on a handkerchief, and requested her to inhale it, which she did with frequent smelling for 30 minutes, when she expressed some surprise that the pain was gone, and asked what it was she had been smelling of. In the course of a few minutes she raised the bandage from her eyes and conversed cheerfully for half an hour. I then directed her to take one of the powders morning and evening, and have since learned that she has had no return of the disease.

CASE III. Miss N., a teacher, has been subject for several years to a neuralgia of the face, severe but irregular in its situation and return. In March last she had an attack so severe as to unfit her for her ordinary pursuit. I prescribed sulph. quinine in 5 gr. doses and directed her to inhale chloroform for the relief of the paroxysms. This she did but sparingly on account of a strong aversion to it, but found so great relief that she continued to employ it several times daily, in doses of about 20 drops, for two weeks, the attacks becoming gradually milder, and ceasing altogether at the end of that time.

This latter case is given to illustrate the difference between secondary neuralgia and that of a strictly periodic kind. In the former the chloroform seemed to have but a temporary effect, but increasing with frequent repetition, in the latter its influence is more decided and permanent, and corresponds to the influence of etherial inhalations, in paroxysm of regular ague, as described by Dr. Freer in a former No. of this Journal.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

A Treatise on Etherization in Childbirth.—Illustrated by five hundred and eighty one cases—By WALTER CHANNING, M. D., Prof. of Midwifery and Medical Jurisprudence, in the University at Cambridge. Boston 1848. W. D. Tickner, & Co. pp. 400 8vo. (From the publishers.)

This is a valuable work, and one much needed by the profession. Hitherto little has been done with Anæsthetic agents in Midwifery. The denunciations of Prof. Meigs, based we are bound to say, upon insufficient grounds, have deterred many from their use; while others have felt a degree of hesitation in resorting to the use of a powerful class of agents, against which so much has been urged, and whose indiscriminate use is doubtless attended with danger. Mere speculative hypothesis founded on preconceived notions, will never satisfy intelligent and well ordered minds as to the therapeutic vulue of anæsthetic agents: we want facts, and this want is, to a certain extent, supplied by the splendid volume before us. A record of nearly six hundred cases is worth all the theories ever invented, and we heartily subscribe to the quaint aphorism quoted in the title-page, "Give me the facts, said my Lord Judge, your reasonings are the mere guess-work of the imagination." We promise our readers a fuller notice hereafter, and in the mean while recommend them to purchase this work, which, independent, of its professional value, is rendered attractive by the agreeable and scholarly style in which it is written. M

ART II.—*Effects of Chloroform and Strong Chloric Ether, as Narcotic Agents.*—By JOHN C. WARREN, M. D., &c., of Boston. Wm. D. Ticknor. 1849. pp. 66. 12 mo. (From the Publishers.)

Not long after the announcement that insensibility to the pain of Surgical operations, could be produced by Sulphuric Ether, various other substances were found to possess the same property. Amongst these the one that promised to be best adopted to the purpose, was chloroform. It was found to be certain and speedy; while, at the same time, its pleasant aromatic flavor, rendered it much less disagreeable than the ether. The narcotic properties of this powerful drug were laid hold of, not only by the

Surgeon, but by many who resorted to it for the purpose of enjoying the temporary ecstacy produced by it, and some for vile and criminal purposes. As might have been supposed, disastrous consequences, in many instances followed: the public became alarmed, and surgeons began to hesitate and reflect. Diligent search was made for other anæsthetic agents; and this little volume was written for the purpose of introducing to the profession Chloric Ether, which, however, is neither more nor less than diluted chloroform.

In this volume, Prof. W. has given detailed accounts of fatal results from the administration of chloroform, with the post-mortem appearances. We have not space at present to give our readers an analysis of the contents of this little volume, which we recommend to them as worthy of their attention. M

ART III.—*Etherization, with Surgical Remarks.*—By JOHN C. WARREN, M. D., Emeritus Prof of Anatomy and Surgery, in the University at Cambridge, &c. &c. Boston, Ticknor & Co. 1848. pp. 100, 12 mo. (From the Publishers.)

This little volume is very interesting, and constitutes a very valuable portion of the history of anæsthetic agents. Its author was among the first surgeons who resorted to the use of these agents, which were first discovered in the city in which he resides. From Boston the use of ether and kindred substances, spread to all parts of the civilized world; and although violently opposed in some quarters, it may now be regarded as settled, that no surgeon is justified, when about performing a severe operation, in witholding these agents, unless he should be of opinion that some peculiar circumstance connected with the case, might render the administration unsafe.

As this work was furnished us at a late date; and as since its publication much new light has been shed upon this interesting and important subject, and, moreover, as we design giving our readers at some future time, a full view of the whole subject; we forego any furthur remarks on this volume, contenting ourselves with quoting the general conclusions at which the distinguished author arrived, concerning the use of anæsthetic agents. M

GENERAL CONCLUSIONS.—The views we have taken on this subject suggest the following inferences.

1st. Inhalation of ether produces insensibility to pain.
2d. Ethereal insensibility, judiciously effected is not followed by any dangerous consequences.
3d. Its administration is easy, and requires but a few minutes.
4th. Individual of all ages may be safely etherized.
5th. Surgical operations may be done under the effects of ether, which could not be done without.
6th. The shock of the nervous system is diminished.
7th. The use of ether has greatly increased the number of successful operations, by encouraging a resort to them at an earlier period of disease.
8th. The use of the sponge is more safe than that of any apparatus.
9th. The existence of chronic pulmonary disease rarely forms an objection to etherization.
10th. Etherization may be employed as a substitute for narcotics.
11th. The employment of ether does not retard the healing of wounds nor give them an unfavorable character.
12th. The pains of death may often be relieved by etherization.

ART. IV.—*A Practical Treatise on the Domestic Management and most Important Diseases of Advanced Life*—With an Appendix, containing a series of cases illustrative of a new and successful mode of treating Lumbago, and after forms of Chronic Rheumatism, Sciatica, and other Neuralgic Affections, and certain forms of Paralysis.—By GEORGE E. DAY, M. D., Fellow of the Royal College of Physicians, and Physician to the Western General Dispensary, Philadelphia: pp 226: 8 vo: Lea & Blanchard. (From the Publishers. For sale by S. C. Griggs & Co.

It is the object of the Profession of Medicine, not only to cure the diseases and relieve the sufferings of youth and Middle age; but, when our art cannot avert the destruction which at last overtakes the human machine, to smooth the descending path, and render less terrible the sufferings attendant on the slowly approaching but certain dissolution. For this purpose Dr: Day has written this excellent treatise, for which are due the thanks of the Profession and all Octogenarians: The work contains much curious learning and research to entertain and interest the professional scholar, as well as a large amount of valuable information to attract the attention of the practical physician. We heartily recommend it to our readers, and regret our inability to furnish them an analysis of its contents. M.

ART. V.—*Parturition and the Principles and Practice of Obstetrics.*—By W. TYLER SMITH, M. D., London, Lecturer on Obstetrics in the Hunterian School of Medicine. Lea & Blanchard, 1849. pp. 395, 12 mo.—(From the Publishers. For sale by Jos. Keen, Jr., & Bro.)

This is a singular volume, devoted to the exposition of what the author terms Reflex Obstetrics, which, he informs us, he has been diligently studying for the last seven years. Hitherto, he tells us, Obstetrics has been merely an Art, which his discovery will elevate to the dignity of a Science; to which, at present, we can only answer, "may be yes, and may be no." The Author is particularly savage on Ether and Chloroform; prophesying their speedy expulsion from the lying-in chamber, as, when under their influence, the reflex action of the ovarian nerves induces the ladies to talk bawdy. It is dedicated to Marshal Hall, the Ursa Major of Reflex Action. As it will probably hereafter receive a more extended notice, we forbear any further comments. M.

ART. VI.—*On the Maternal Management of Children in Health and Disease.*—By THOMAS BULL, M. D., Member of the Royal College of Physicians. From the third London Edition; Philadelphia; Lindsay & Blakiston; 1849; pp. 506., 12 mo. (From the Publishers. For sale by S. C. Griggs & Co.)

This is an excellent little book—the best of its kind we have seen. As the title indicates, it is not designed for the practitioner, but for the mother of the family. There are many matters connected with the rearing of children, with which every mother should be familiar; but of which unfortunately, the majority of women are totally ignorant. The health of children—and the remark applies with peculiar force to girls—is often ruined and indiscretion of the mother. This evil, the little volume before us is designed to obviate, by giving judicious general directions with regard to the management of children in health and disease.—Heretofore the education of women has been wofully defective. They have been taught music, painting, embroidery, &c., the mint, anise and cummin of a good education; but of the weightier matters of the law—the laws of life—the means of securing sound constitutions—a knowledge of the duties and responsibilities they are to assume in after life, they are taught little or nothing.

For this defect, this little volume is intended to compensate. The work treats fully of the general management of children in health and disease.

The directions are judicious and valuable; and we can cheerfully recommend the book to the favorable attention of the profession and the community at large. It contains some *Anglicisms* which are not applicable to this meridian; but these do not detract to any considerable extent from the value of the volume. We hope our subscribers will buy it for themselves, and recommend their patrons to do the same. It will be money well invested. M.

Part 3.—Editorial.

ARTICLE I.

STATE MEDICAL ASSOCIATIONS.

We have received from our obliging and attentive friend, Dr. T. Bullard, a copy of the proceedings of the State Medical Convention of Indiana. The assemblage of delegates was not large; but we hail this Convention as the nucleus of a large and respectable State Medical Society, which will do much to elevate the character of the profession in Indiana. Committees were appointed to report a Constitution for a State Medical Society; to report on the propriety of publishing a State Medical Journal; to report resolutions for the consideration of the Convention; and a Committee on Publication.—Dr. Curran in a brief but able report, recommended the establishment of a State Medical Journal. We believe it was in contemplation to establish one immediately, but we have since learned from our friend Dr. Brown, that this project has been postponed.

Among the resolutions reported to the Convention we notice the following:

Whereas, The Medical profession in general have been accustomed heretofore to bestow professional services upon clergymen, and their families, gratuitously, and have considered it a pleasure so to do; *And, Whereas*, There is no class of our fellow-citizens, with the same influence at command, who so readily countenance quackery and patent medicines, both by signature and influence; therefore,

Resolved, That we will hereafter demand remuneration from all clergymen, as from other patients, who, in any manner, are known to lend their influence to irregular practitioners, or to the dissemination of nostrums.

With regard to this subject a friend has suggested to us that there is no propriety in putting clergymen on the "free list," unless it be those who are in straitened circumstances. There

is no reason why a person who receives his thousands a year should have the gratuitous services of a physician who perhaps does not receive half as much. We are sorry to see any breach made between the Medical and Clerical professions, between which it is important that the most harmonious relations should exist.

The officers for the ensuing year are: Pres., Dr. Cornet, of Ripley Co.; Vice-Presidents, Drs. Clapp, of New Albany, Johnson, of Cambridge, Dunlap, of Indianapolis, Farquher, of Wabash; Sec's., Drs. Bobbs and Hunt, of Indianapolis; Cor. Sec., Dr. Bullard, of Indianapolis; Treasurer, Dr. Mothershead, of Indianapolis; Librarian, Dr. Jemison of Indianapolis; Delegates to the American Medical Association, Drs. Mullen, Sanders, and Mothershead.

We owe an apology, which we cheerfully make—to the Secretary of the Ottawa Medico-Chirurgical Society, for an unintentional omission to notice in our last number, their circular calling the attention of the profession of this State, to the importance of organizing a State Medical Society, and calling a convention for that purpose at Springfield, on the 1st of January next. We are happy to express our approval of, and co-operation in this project; but we doubt the propriety of the time appointed. The close of navigation at that time will have the effect of procuring but a meagre attendance.—As the matter has been so long deferred, we would suggest that the Convention be postponed until May, at which time we suppose a tolerably full attendance might be procured. We will be glad to hear from the various Medical Societies, and individual members of the profession, their opinions on this subject; and if it is thought best to hold a Convention in January, we will publish a notice to that effect in our next No. We cheerfully accord to our Ottawa friends the praise of being the first to move in a matter of so much interest and importance to the profession in Illinois.

We have received a copy of the proceedings of the Wisconsin State Medical Society, but as it was sent to us in a newspaper, which has been mislaid, we are unable to give our readers any synopsis of the transactions of the Society. We will be much obliged to the Secretary if he will furnish us a fuller copy from the records. The fact of the organization of a State Medical Society in this young and thriving State, affords gratifying evidence that our profession is keeping pace with the rapid improvement of the business and wealth of what will soon be the *great* State of Wisconsin. We wish our *Badger* brethren great success, because we believe they deserve it.

We have also received a copy of the transactions of the Ohio State Medical Society. This is a flourishing institution and one to which the profession in that State may point with commendable pride. The meeting for the present year quite equalled in interest that of any preceding year.

While on the subject of Medical Associations, we will take the opportunity of presenting to our friends of the Rock River Society our thanks for a copy of their proceedings, an abstract of which will be found on a preceding page. These, we think, will be perused with interest by our readers.

ARTICLE II.

OBITUARY.

Died.—At Utica, N. Y., on the 9th of Sept., of dysentery, Amariah Brigham, M. D., Superintendent of the N. Y. State Lunatic Asylum and Editor of the American Journal of Insanity, aged 51 years. Dr. B. was highly distinguished as a sound philosopher and able writer.

On the 2d of Sept., of Cholera, after an illness of a few hours, Jno. P. Harrison, M. D., Prof. in the Med. College of Ohio, and one of the Editors Western Lancet, universally known to the profession by his long connection with medical teaching, and his extensive productions as an author.

Of Cholera, at St. Louis, THOMAS BARBOUR, M. D., Prof. of Obs. &c., in the University of the State of Missouri, and formerly Editor of the Missouri Medical Journal.

Of Cholera, at his residence in Chicago, in August last, JOHN E. O'LEARY, M. D.

Of Cholera, on the 27th of July, at Naperville, Ill., ERASTUS G. HOUGH, M. D.

Both of these were young men of good standing and fair promise for usefulness. Although not old in the service, having graduated at Rush Medical College in 1848, they fell at their posts.

ARTICLE III.

MISCELLANEOUS INTELLIGENCE.

G. N. Fitch, M. D., late Professor of Principles and Practice of Medicine in Rush Medical College, has been elected to Congress from the Northern District in Indiana. Aside from giving any expression of a political partizan character, we believe he will be an able and efficient representative. We hope he may, by efforts in procuring a law against patenting nostrums, even more highly distinguish himself, than has Dr. Edwards of Ohio, by the Drug Inspection Law. It is high time the National Government had withdrawn its patronage from the quackery of patenting medical compounds and systems of practice.

American fondness for any thing that comes through European channels is strongly illustrated by an extract from a Paris Journal translated by Dr. D. W. Yandell, reporting the cure of Spina Bifida by iodine injections by Dr. Brainard, and credited to an Indiana Journal, which a number of our exchanges are copying The case was reported by Prof. Brainard in the January 1848 number of this Journal, then under the title of the Illinois and Indiana Medical and Surgical Journal, but passed unnoticed by most of our cotemporaries. But now that it has been translated into French and back again into English, having suffered some in point of correctness, it seems to attract considerable attention.

Professor Davis arrived in Chicago, the field of his future labors, a few days since, where he has taken up his permanent residence. The Annalist, in consequence of his leaving New York, has been discontinued.

Dr. E. D. Fenner, of New Orleans, proposes to publish an annual volume to be entitled *Southern Medical Reports*, which, from his ability and the facilities he will enjoy for collecting the information he proposes to embody in them—the Meterology, Topography and Diseases of the Southern States—will be a valuable work.